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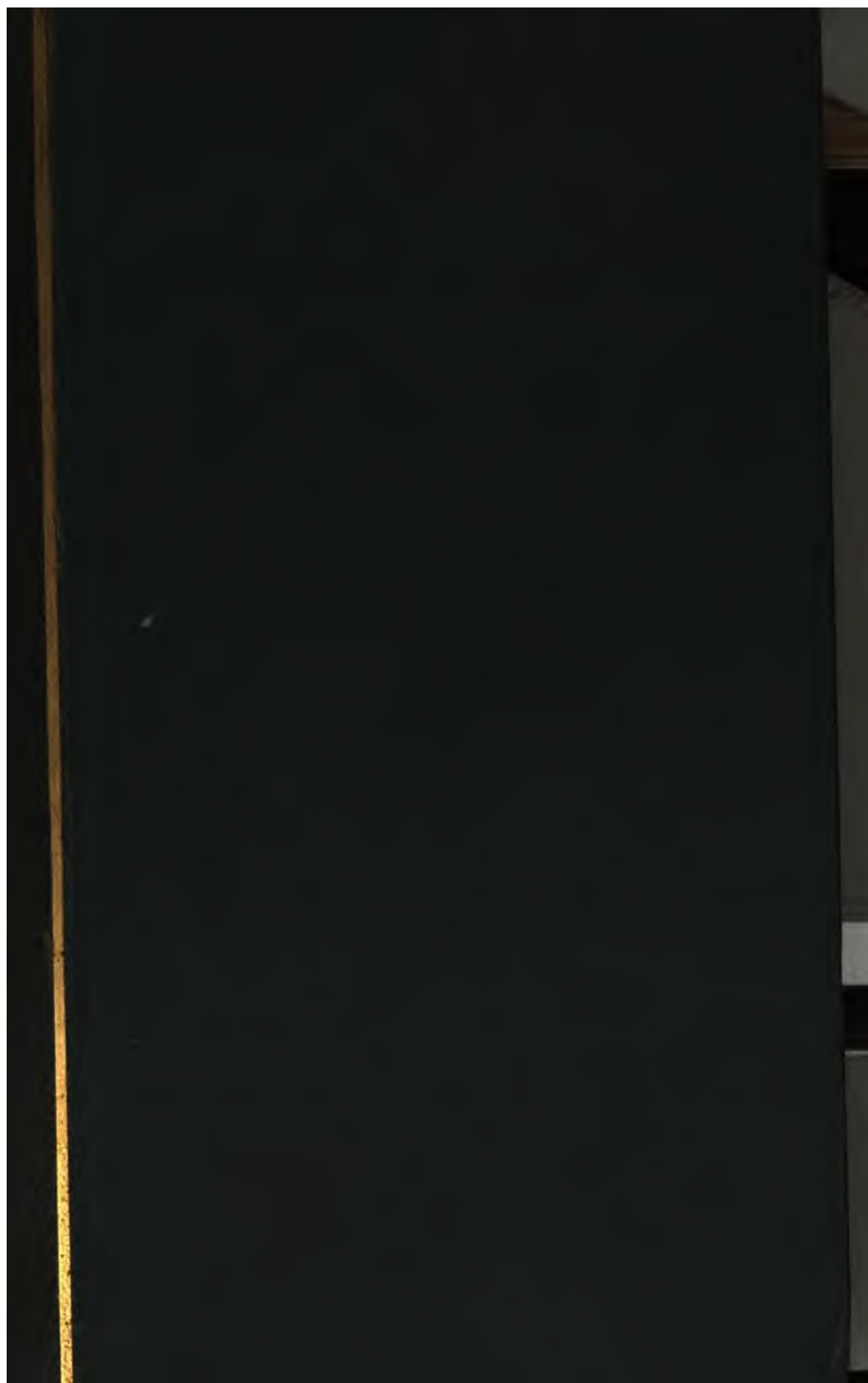
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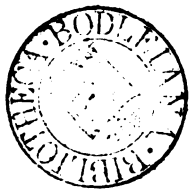
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STATE OF ARIZONA
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STATISTICAL ACCOUNT OF SCOTLAND

By JOHN GIBSON, Esq.

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STATISTICAL ACCOUNT OF BENGAL.

BY W. W. HUNTER, B.A., LL.D.,

DIRECTOR-GENERAL OF STATISTICS TO THE GOVERNMENT OF INDIA;

MEMBER OF THE COUNCIL OF THE ROYAL ASIATIC SOCIETY; HONORARY OR FOREIGN MEMBER OF THE
ROYAL INSTITUTE OF NETHERLANDS INDIA AT THE HAGUE, OF THE INSTITUTO VASCO
DA GAMA OF PORTUGUESE INDIA, OF THE DUTCH SOCIETY IN JAVA, AND OF
THE ETHNOLOGICAL SOCIETY, LONDON; HONORARY FELLOW OF
THE CALCUTTA UNIVERSITY; ORDINARY FELLOW OF
THE ROYAL GEOGRAPHICAL SOCIETY, ETC.

VOLUME III.

DISTRICTS OF MIDNAPUR AND HÚGLÍ (INCLUDING HOWRAH).



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VOLUME III.

CONTENTS OF BENGAL.

of the southern half of the Division—one of the most populous and most varied as regards physical features of the Administrative Divisions of Bengal—comprising Midnapur on the south; Húglí, on the east; Bánkura on the west; and Howrah on the north. The present volume deals with the two southern districts,—Midnapur, and Húglí including the District of Howrah. The following volume deals with the three northern ones,—Bardwán District, and the District of Bím.

The District of Howrah, which I have placed first in this volume, exhibits the characteristics of a seaboard, a deltaic, and a fluvial District; and in this way fitly represents the Administrative Division to which it belongs. Its formation has been formed within historical times out of the alluvial deposits borne down by the Húglí from the Ganges system of Upper India. Its southern tracts are maritime, subject to tidal waves and to the influence of the sea. Its western part consists of the hard laterite hills and slopes upwards to the adjoining highlands and ranges of the Orissa Tributary States.



PREFACE TO VOLUME III.
OF THE
STATISTICAL ACCOUNT OF BENGAL.

THE present volume treats of the southern half of the Bardwán Division. This Division—one of the most populous and wealthy, and the most varied as regards physical aspects, of the Administrative Divisions of Bengal—comprises six Districts, namely, Midnapur on the south; Húglí, Howrah, and Bardwán on the east; Bánkura on the west; and Bírbhúm on the north. The present volume deals with the three southern Districts,—Midnapur, and Húglí including the Magisterial District of Howrah. The following volume will treat of the three northern ones,—Bardwán District, Bánkura, and Bírbhúm.

Midnapur, which I have placed first in this volume, exhibits the threefold characteristics of a seaboard, a deltaic, and a high-lying, non-fluvial District; and in this way fitly represents the Administrative Division to which it belongs. Its eastern border has been formed within historical times out of the alluvial deposits borne down by the Húglí from the great Gangetic system of Upper India. Its southern tracts are strictly maritime, subject to tidal waves and to the inroads of the sea. Its western part consists of the hard laterite formation, and slopes upwards to the adjoining highlands and mountain ranges of the Orissa Tributary States.

Húglí District represents the ordinary type of an old-formed deltaic country ; but its proximity to Calcutta gives it a wealth and an importance which few Districts of the Bengal delta possess. It contains the densest population of any non-urban tract in India, viz. 1045 persons per square mile. The river Húglí forms, as it were, a great street, which carries the overflowings of the wealth and population of Calcutta to the villages along its banks. Húglí District has also a special interest, from the fact that it exhibits the final stage in the construction of a delta, the stage in which the channels silt up and cease to afford adequate outlets from the swamps and marshes. The malarial fevers incident to that stage have for some years preyed upon the population ; and a narrative of the measures by which modern science is endeavouring to combat the unfavourable physical conditions of the country will be found in my Statistical Account.

The Magisterial District of Howrah forms a transpontine suburb of Calcutta. For revenue purposes it is included within Húglí, but in other respects it constitutes a separate District.

This volume treats of an area of 6564 square miles, containing a population of 4,029,519 souls. The statistics were collected for the most part in the years 1870-72, and as regards accuracy are subject to the remarks in my Preface to Volume I.

W. W. H.

TABLE OF CONTENTS :

DISTRICTS OF MIDNAPUR AND HUGLI (INCLUDING HOWRAH).

	PAGE
DISTRICT OF MIDNAPUR,	17-247
GEOGRAPHY AND GENERAL ASPECT,	17-44
Area and Boundaries,	17-18
Jurisdiction and Historical Sketch,	18-22
Physical Aspects,	22-23
River System,	23-26
Changes in River Courses,	26-29
The Midnapur High-Level Canal,	29-36
Rúpnaráyan and Rasúlpur Canal,	36-37
Utilization of the Water Supply,	37
Fisheries,	37-38
Land Reclamation,	38
Lines of Drainage,	39
Mineral Products,	39
Jungle Products,	39
Feræ Naturæ,	39-40
THE PEOPLE,	40-79
Population, including the Census of 1872,	40-44
Occupations of the People,	44-48
Ethnical Division of the People,	48-51
Aboriginal and Hill Tribes,	51
Immigration and Emigration,	52
List of Castes,	52-58

DISTRICT OF MIDNAPUR—*continued.*

	PAGE
<i>The People—continued.</i>	
Religious Division of the People,	58-60
List of Towns and Villages,	60-70
Village Officials,	70-78
Material Condition of the People: Clothing, Food, etc.,	78-79
 AGRICULTURE,	 79-114
Rice Cultivation and List of Crops,	79-81
Cultivated Area, Out-turn of Crops, etc.,	82-83
Condition of the Peasantry,	83
Domestic Animals, Agricultural Implements, etc.,	83-84
Wages and Prices, Weights and Measures, etc.,	84-85
Waste Lands,	85
Land Tenures,	86-100
Land Settlements,	100-107
Rates of Rent,	107-108
<i>Abwabs</i> or Customary Cesses,	108-113
Manure, Rotation of Crops, etc.,	113-114
Irrigation,	114
 NATURAL CALAMITIES,	 114-146
Natural Calamities, such as Droughts and Floods,	114-119
Famine Prices and Famine Warnings,	119-120
The Famine of 1866 as it affected Midnapur, Embankments,	120-132
Foreign and Absentee Proprietors,	133-146
Foreign and Absentee Proprietors,	146
 MEANS OF COMMUNICATION, COMMERCE, MANUFACTURES,	 146-154
Roads and Means of Communication,	146-149
Manufactures,	149-150

TABLE OF CONTENTS.

9

DISTRICT OF MIDNAPUR—*continued.*

	PAGE
<i>Means of Communication, etc.—continued.</i>	
Salt Manufacture,	150-152
Trade and Commerce,	152
Capital and Interest,	153
Estimated Income of the District,	154
ADMINISTRATIVE,	154-220
Revenue and Expenditure at different Periods,	154-157
Land Revenue: Method and Cost of Collec- tion, etc.,	157-163
Civil and Criminal Courts,	163
Police and Jail Statistics,	163-172
Educational Statistics,	172-185
Postal Statistics,	185-186
Administrative Subdivisions,	186-189
Fiscal Divisions (<i>Pargands</i>),	189-220
METEOROLOGICAL, MEDICAL, AND SANITARY,	220-247
Meteorological Aspects: the Cyclone of 1864,	220-227
Climate, Temperature, and Rainfall,	227
Medical Aspects: the Epidemic Fever,	227-244
Cattle Diseases,	244-245
Native Medical Practitioners,	245-246
Indigenous Vegetable Drugs,	246
Charitable Dispensaries,	247
DISTRICT OF HUGLI (INCLUDING HOWRAH),	251-440
GEOGRAPHY AND GENERAL ASPECT,	251-266
Area and Boundaries,	251-252
Jurisdiction,	252-253
Physical Aspects,	253-254
River System,	254-262

DISTRICT OF HUGLI, ETC.—*continued.*

	PAGE
Geography and General Aspect— <i>continued.</i>	
Lakes and Marshes,	262
Canals and Artificial Watercourses,	262-263
Riverside Towns,	263
Utilization of the Water Supply,	263-264
Fisheries,	264
Marsh Reclamation,	264-265
Lines of Drainage,	265-266
Jungle Products,	266
Feræ Naturæ,	266
THE PEOPLE,	267-332
Population, including the Census of 1872,	267-276
Occupations of the People,	276-280
Ethical Division of the People,	280-284
List of Castes,	284-291
Religious Division of the People,	291-293
Town and Rural Population,	293-294
List of Towns and Large Villages,	294-315
Village Officials,	317-322
Fairs and Religious Gatherings,	322-328
Material Condition of the People : Clothing, Food, etc.,	328-329
AGRICULTURE,	329-358
Rice Cultivation and Cereal Crops,	329-332
Pulse Crops,	332-333
Oil-seeds,	333-334
Fibres,	334
Vegetables,	334-337
Fruit Trees,	337-338
Miscellaneous Crops, such as Sugar-cane, Indigo, Tobacco, <i>Pán</i> , etc.,	338-339
Cultivated Area, Out-turn of Crops, etc.,	340-341
Condition of the Peasantry,	341-342

TABLE OF CONTENTS.

DISTRICT OF HUGLI, ETC.—*continued.*

	PAGE
<i>Administrative—continued.</i>	
Police and Jail Statistics,	384-391
Educational Statistics,	392-409
Postal Statistics,	410-411
Administrative Subdivisions,	411-413
Fiscal Divisions,	413-417
METEOROLOGICAL AND MEDICAL ASPECTS, .	417-440
Climate, Temperature, and Rainfall, .	417
The Epidemic Fever,	418-437
Native Medical Practitioners,	438-439
Charitable Dispensaries,	440
INDEX,	443

ERRATA.

PAGE 45, line 5, for *purshits* read *purohits*.

Page 145, line 7, for *Eranch* read *Eranch*.

Page 293, line 3, for *Midnapur* read *Serampur*.

(Please correct this in the text, as it destroys the whole sense.)

I shall be grateful for any corrections or suggestions which occur to the reader. They may be addressed to me, care of the Secretary to the Bengal Government, Calcutta.



INTRODUCTORY NOTE.

WEIGHTS AND MEASURES.

THE local weights and measures are given in detail at pp. 85 and 345-347. In some instances in the following volume, these weights and measures have been converted into their English equivalents, and the native names have not been added. In such cases the reconversion from the English equivalents may be effected with sufficient accuracy in accordance with the following tables :—

MONEY.

- 1 pie ($\frac{1}{12}$ of an ánná) = $\frac{1}{2}$ farthing.
- 1 pice ($\frac{1}{4}$ of an ánná) = $1\frac{1}{2}$ farthings.
- 1 ánná ($\frac{1}{16}$ of a rupee) = $1\frac{1}{2}$ pence.

The rupee is worth, according to the rate of exchange, from 1s. 9d. to 2s. ; but for ordinary purposes it is taken at 2s.

WEIGHTS.

The unit of weight is the ser (seer), which varies in different Districts from about $1\frac{1}{2}$ lbs. to 2·205 lbs. This latter is the standard ser as fixed by Government, and corresponds to the metrical kilogramme. For local calculations in Lower Bengal, the recognised ser may be taken at 2 lbs. The conversion of Indian into English weights would then be as follows :—

- 1 chaták ($\frac{1}{16}$ of a ser) = 2 oz.
- 1 ser ($\frac{1}{16}$ of a maund) = 2 lbs.
- 1 man or maund (say) = 82 lbs.

LAND MEASURE.

The unit of land measure is the bighá, which varies from $\frac{1}{3}$ of an acre to almost 1 acre. The Government standard bighá is 14,400 square feet, or say $\frac{1}{3}$ of an acre ; and this bighá has been uniformly adopted throughout the following volume.



STATISTICAL ACCOUNT

OF

THE DISTRICT OF MIDNAPUR.¹

MIDNAPUR, the southernmost District of the Bardwán Division, is situated between $22^{\circ} 56' 40''$ and $21^{\circ} 36' 40''$ north latitude, and between $88^{\circ} 13' 30''$ and $86^{\circ} 35' 22''$ east longitude. It contains a total population, as ascertained by the Bengal Census of 1872, of 2,540,963 souls; and a total area, after recent transfers, of 5082 square miles. The principal town, which is also the Administrative Headquarters of the District, is Midnapur,

¹ The principal official sources (chiefly mss.) from which I have compiled this Statistical Account are:—(1) Answers to my five series of questions, furnished by the Magistrate and Collector. (2) Mr. H. V. Bayley's Memorandum on Midnapur (1852). (3) Reports by Colonel Rundall, C.S.I., Inspector-General of Irrigation Works, and by Colonel Haig, Chief Engineer of Irrigation Works on the Midnapur High Level Canal. (4) Census Report of Bengal, 1872, with District Census Return subsequently compiled in 1873. (5) Special Report on the Land Tenures of Midnapur. (6) Special Report on the prevailing rates of rent for different descriptions of land. (7) Report of the Famine Commissioners. (8) Annual Reports of the Inspector-General of Police, particularly that for 1871. (9) Reports of the Inspector-General of Jails for 1870 and 1871, with special Statistics compiled in his office. (10) Annual Reports of the Director of Public Instruction, with special Educational Statistics compiled for the years 1856-57, 1860-61, and 1870-71. (11) Postal Statistics, furnished to me by the Director-General of Post Offices. (12) Statement of Areas, Latitudes and Longitudes, etc., supplied by the Surveyor-General. (13) Ms. materials furnished by the Board of Revenue and the Bengal Secretariat. (14) Medical Report, furnished to me by Dr. R. S. Matthew, Civil Surgeon. (15) Report on the Charitable Dispensaries of Bengal for 1871. (16) Cyclone Report for 1864, with various other Papers and Documents. (17) Board of Revenue Ms. Records, 1782 to 1812, which I am now editing in four volumes.

situated on the north bank of the Kásái river, in $22^{\circ} 25' 33''$ north latitude, and $87^{\circ} 21' 45''$ east longitude.

BOUNDARIES.—Midnapur is bounded on the north by Bánkurá District ; on the east by the Districts of Húglí and Howrah, and by the river Húglí ; on the south by the Bay of Bengal ; on the south-west by the District of Balasor ; on the west by the Tributary State of Morbhanj ; and on the north-west by the District of Puruliá.

JURISDICTION.—The Muhammadan division of the country known as *Sarkár* Jaleswar, nearly coincided with the present limits of Midnapur, including western and southern Hijili. It was subdivided into twenty-eight smaller divisions or *mahals*, and paid a revenue to the Mughul Emperor of 50,052,738 *dáms*, or Rupees 1,251,318. The chief town of the *Sarkár* was Jaleswar, now included in the neighbouring District of Balasor. The following are the twenty-eight ancient divisions of *Sarkár* Jaleswar :—(1) Bánsdihá or Haft-chaur, situated around the town of Jaleswar, in Balasor District. (2) Píplí, or Píplí Sháhbandar, a town on the banks of the Subanrekhá river, in Balasor District. This place was the site of the earliest English settlement in Bengal, and was a considerable port until the river became unnavigable, by the formation of a bar across its mouth. (3) Bálisháhi, also called Káлиндí Bálisháhi, situated in South Hijili. (4) Bálikutí, in Sátmalang Fiscal Division, in Balasor District. (5) Biripadá, situated on the edge of the Morbhanj jungles. It paid a revenue of £1600 to the Mughul Government. (6) Bhográi, a large Fiscal Division at the mouth of the Subanrekhá, situated partly in Balasor District and partly in the Hijili Division of Midnapur. (7) Bagrí, a Fiscal Division in North Midnapur, bordering on Bánkurá and Húglí Districts. (8) Bázár ; the same as the present Fiscal Division of Dhenkiá Bázár, situated along the Kásái river, south-east of the town of Midnapur. (9) Bráhmañbhúm, a Fiscal Division in Northern Midnapur. (10) Jaleswar, a Fiscal Division of Balasor. (11) Tamluk, a Subdivision and large *parganá* of Midnapur, situated along the banks of the Rúpnaráyan river. (12) Tarkuá, a Fiscal Division in the south-west of Midnapur. (13) Dáwarpára or Shorbhúm ; not identified. (14) Ramná, now a large town west of Balasor. (15) Ráin ; described as 'on the frontier of Orissa.' This Fiscal Division is several times mentioned in Muhammadan histories, and also in Stewart, as the place where Dáúd Khán, the last Afghán King of Bengal, halted on his retreat before the victorious Mughuls, in order to collect his scattered troops.

(16) Ráipur; described as 'a large town.' It is situated on the upper Kásái, west of Bagrí Fiscal Division, and is within the Mánbhúm District. (17) Karshi; not identified. (18) Máljhatá, within the Hijili Division of Midnapur. (19) Midnapur; described as 'a large town with two forts, one old and one new.' (20 to 28) Subang, Siárl, Kásijorá, Kharagpur, Kedárkund, Karái, Gagnápur or Gagneswar, Mahákanghát or Kutabpur, and Náráyanpur or Khandar,—all situated within the limits of the modern District of Midnapur.

Our connection with the District dates from the year 1760. In that year the East India Company deposed Mír Jafar Khán, whom they had placed upon the throne of Bengal three years before (after the battle of Plassey), and elevated his son-in-law, Mír Kásim Khán, to the Governorship. As the price of his elevation, Mír Kásim, by a treaty dated 27th September 1760, ceded to the Company the three Districts of Midnapur, Chittagong, and Bardwán, which were then estimated to furnish a third of the whole revenue of Bengal. The first English officer appointed to administer the District was a Mr. Johnstone, who, shortly after our acquisition, established the Commercial Factory in the town of Midnapur. The outlying position of the District rendered it open to invasion by the Marhattás from Orissa, and to predatory raids by the chiefs and Rájás of the western hill country. Our earlier officers found much difficulty in reducing the landholders of the western jungles to obedience, and this tract of country was thus described in 1778: 'The western jungle is an extent of country about eight miles in breadth and sixty in length. On the east it is bounded by Midnapur, on the west by Sinhbhúm, on the north by Pánchet, and on the south by Morbhanj. There is very little land cultivated in its whole extent, and a very disproportionate part of it is capable of cultivation. The soil is very rocky. The country is mountainous, and overspread with thick forests, which render it in many places utterly impassable. It has always been annexed to the Province of Midnapur, but from its barrenness it was never very greatly regarded by the Nawáb's Government, and the *zamíndárs* sometimes paid their rent, or rather tribute, and sometimes not.' The jungle *zamíndárs* were designated '*Rájás*' by their own tenants, and are thus described in the letter above quoted: 'These *zamíndárs* are mere freebooters, who plunder their neighbours and one another; and their tenants are banditti, whom they chiefly employ in their outrages. These depredations keep the *zamíndárs* and their servants

continually in arms ; for after the harvest is gathered there is scarcely one of them who does not call his tenants together, either to defend his own property or attack his neighbour.' After a great deal of trouble, these people were brought to some degree of subordination, and agreed to pay an annual revenue of £220 for their lands, instead of £120, which they formerly paid. However, for long afterwards, disturbances constantly occurred, and it is recorded that the cost of keeping them in order often exceeded the sum realized from them as revenue or tribute. For several years Jaleswar was maintained as a frontier fort to check the depredations of the Marhattás and of these jungle robber-Rájás.

Even in the quieter and more civilised parts of the District, the country contained many strongholds in possession of the *zamindárs*, which were dignified by the name of forts. A place of strength in which to retreat on the occasion of the incursions of the Marhattás or their jungle neighbours, was at all times necessary to the more wealthy landholders, who were always liable to attack. One of these strongholds or forts was thus described : ' Kila Maináchaurá is a well-known place of this kind. It is surrounded by two ditches—one wet and one dry—both formerly very deep and broad, and filled with alligators. Within its inner ditch was another defence of closely-planted bamboos, so intertwined with each other as to be impervious to an arrow, and unapproachable by cavalry, which formed the main force of the Marhattá invaders. The ground thus enclosed is wide, and contains many houses. The *zamindár* of Maináchaurá, like his brethren of the jungles, was not then, as now, a peaceful subject, and used to shut himself up in his fort whenever called upon to settle for his lands or to pay his revenue.'

Among the hill chiefs, the Rájá of Morbhanj gave constant trouble to our early officers. The Rájá held the Parganá of Nayábasán, within the jungle tract of Midnapur, as a revenue-paying estate, and quite distinct from his independent territory. Great difficulty, however, was experienced in realizing the Government demand ; and the Board of Revenue's Records contain frequent allusions to raids and depredations committed by the Rájá of Morbhanj upon the cultivators in the more settled parts of the District. In 1782, the Rájá set up a claim to the proprietary right of Bhelóráchaur, a Fiscal Division now within the District of Balasor. His claims were rejected by the Governor-General in July 1782 ; and shortly afterwards, in October 1783, the Collector of Midnapur

reported acts of violence and depredations committed by the Rájá ; subsequently, that he was assisting another insurgent chief, and raising an army for the invasion of the Company's Districts. The Company accordingly concerted a plan of joint hostilities with the then Marhattá Governor of Orissa, Rájá Rám Pandit, against the Morbhanj Rájá, who a few months afterwards made his submission, and agreed to pay a yearly rental of £320 for his estate in Midnapur. This assessment has remained almost stationary ever since, and in 1870 was returned by the Collector of the District at £379, 3s. 6d. for the two Fiscal Divisions of Nayábasán and Rohiní Maubhándár.

At the time of the Decennial Settlement of 1789, the two large Fiscal Divisions of Tamluk and Mahishádal, which had hitherto been under the separate jurisdiction of Hijili, were transferred to Midnapur. Hijili remained a separate Collectorate up till 1836, when it was annexed to Midnapur, with the exception of the Fiscal Divisions of Bhográi, Kumardáchaur, and Sháhbandar, which formed a part of it, and which were transferred to the Orissa District of Balasor. Hijili has ever since remained a portion of Midnapur, although in 1852, Mr. H. V. Bayley, Collector of the District, in his valuable ms. 'Memorandum on Midnapur,' recommended its separation, and proposed that the Salt Agent of Hijili should be appointed Collector and Magistrate. Mr. Bayley, in his report, thus stated the reasons for the proposed change : ' Because Hijili is settled for thirty years, like Orissa ; the people also use Uriyá as their language of business and of life. Because the combination of offices thus proposed for Hijili has been found to work very well in Orissa ; the salary of the Hijili Salt Agent is also the same as that of an Orissa District Officer's, and he has already an ample office, a treasury, and a guard. He now receives the whole land revenue payments of Hijili ; the same *samindárs* with whom he would have to deal as Collector, he has now to deal with as Salt Agent. He would not be overworked, for he would have the aid of the Deputy Collector at Contai (Kánthí), of the Deputy Magistrate at Nagwán, and of the Deputy Salt Agent (that officer being also Civil Surgeon). No portion of the District would be more than thirty miles from Contai (Kánthí), his headquarters ; and while this would secure him from being overburthened by his charge, it would, at the same time, be an infinite blessing to the poorer classes engaged in agriculture, salt manufacture, and on the embankment works, to whom a journey of sixty or seventy miles to Midnapur, in appeals

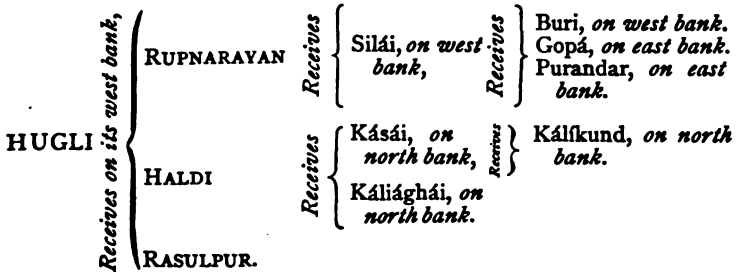
or other important cases where personal attendance is requisite, involves considerable loss.' The proposition of the separation of Hijili from Midnapur, and its conversion into a separate District, however, was not carried out, probably owing to the abolition of the Government salt monopoly. In 1826, it was proposed to transfer Chandrakoná Fiscal Division from Húglí District to Midnapur, upon the petition of a large number of its inhabitants, and also on the ground of its being nearer the town of Midnapur than that of Húglí. The proposal was negatived at the time by the Government, on the ground that it would involve the transfer of bulky records, and because no object of a territorial nature was to be gained by the change. The proposition was subsequently revived, and recently Chandrakoná Fiscal Division has been separated from Húglí, and annexed to Midnapur District. The Collector reported in 1870, that the limits of the revenue, civil, and magisterial jurisdictions were all conterminous.

PHYSICAL ASPECTS OF THE DISTRICT.—The general appearance of Midnapur, as of most Districts in Lower Bengal, is that of a large open plain, well cultivated. The northern tracts are thinly wooded, partly from the poorness of the soil, and also from the ruthless way in which the *sál* and other large trees have been cut down, without being replaced by young trees. In the neighbourhood of some of the villages, a few tamarind and *sál* trees still remain, and a few tracts are covered with stunted *sál*-wood, or other low-growing and useless jungle. The country along the western boundary of the District is undulating and picturesque, with large tracts covered with extensive jungle. The soil is arid, and scarcely anywhere deep, many tracts being unproductive, and almost uninhabited. The eastern and southern portions, however, are swampy and well cultivated, the Hijili Division especially being in productiveness little, if at all, inferior to the rich rice swamps of Arákán. The Hijili Division of Midnapur consists of the tract of land along the coast from the mouth of the Rúpnráyan, along the west bank of the Húglí river, to the northern boundary of Balasor District. Mr. John Grant, in his Report on the Revenues of Bengal, dated Calcutta, April 27, 1786, and published in his Fifth Report of the Select Committee of the House of Commons on the affairs of the East India Company, London 1812 (Madras reprint, 1866, p. 434), estimates the area of Hijili at 1098 square miles, and states that the country 'is of great importance as an accessible frontier, rich in its

produce of grain, but still more valuable as productive of more than one-third of the necessary quantity of salt manufactured and consumed annually within the whole British dominions dependent on Fort William.' The Survey maps of 1849 return the area of Hijili at 1013.95 square miles. This tract is well watered by navigable rivers, and numerous intersecting watercourses, the absence of which is a peculiarity in other parts of the District. It produces great quantities of rice, and is dotted with numerous plantations of date trees and other palms. The line along the sea-coast is covered with coarse grass. Prior to the abolition of the Government salt monopoly, Hijili was one of the great seats of salt manufacture in Bengal, and a considerable quantity is now manufactured by private persons under Government supervision. They pay the duty, 8s. 9d. a hundredweight, upon all they produce. The manufacture has, however, to a very great extent fallen off of late years, the native article being unable to compete with the cheaper salt imported from Liverpool. A description of the process of salt-making in Hijili will be given on a subsequent page. There are no mountains nor hills, and, with the exception of the undulations in the jungles along the western boundary, no elevated tracts, in Midnapur District.

RIVER SYSTEM.—The only rivers of any importance in Midnapur District are the Húglí and its tributaries. The following table will illustrate the

RIVER SYSTEM OF MIDNAPUR.



THE HUGLI RIVER nowhere intersects Midnapur District, but flows along its eastern boundary from the point where it receives the waters of the Rúpnráyan, opposite Húglí Point, down to the Bay of Bengal. A few miles above the mouth of the Rúpnráyan, the Dámodar empties itself into the Húglí, and between the entrances of these two rivers lie the much-dreaded 'James and Mary' sands

(a corruption of the Bengal *jal-mári*—literally, ‘Deadly Waters’), formed by the silt brought down by the Dámodar and Húglí rivers. The deposition of the silt at this spot is caused by the floods or freshets of the Rúpnáráyan, which take place at the same time as those in the Dámodar, damming up the current of the Húglí, and forming a back-water, which favours the deposit. These sands, according to river charts of 1745, were then in a very early stage of formation, as the main channel of the Dámodar had in those days a more direct inclination to the Húglí, and assisted the current of that river in overcoming that of the Rúpnáráyan, and creating a good scour of the silt below it. A further and more detailed description of these sands will be given in the Statistical Account of Húglí, to which District it more properly belongs. A few of the principal changes in the southern course of the Húglí will be mentioned on a subsequent page (p. 26); but for a further account of the river from Nadiyá to the sea, I must refer the reader to my Statistical Account of Calcutta, where the subject will be treated at length. The only places of importance on the banks of the Húglí, within Midnapur District, are the village and telegraph station of Khejiri (Kedgere) and the lighthouse at Geonkhálí (Cowcolly).

THE RUPNARAYAN enters the District from Húglí on the north, under the name of the Dhalkisor. It is called the Rúpnáráyan from the point at which it touches Midnapur. It thence flows along the eastern boundary of the District, but nowhere intersects it past the Fiscal Divisions of Chitwá, Tamluk, and Nayá-ábádí, till, as above stated, it falls into the Húglí river opposite Húglí Point. The Rúpnáráyan is a large river, and is navigable throughout the year by native boats of four tons burden, as far as Ghátál, a village in Chandrakoná Fiscal Division, about thirty miles north of the high road. The principal tributary of the Rúpnáráyan is the Silái. This river enters Midnapur from Mánbhúm District on the north, whence it flows a very tortuous course,—first in an easterly and south-easterly direction through Bagrí Fiscal Division, afterwards south through Chandrakoná, then north-east along the boundary between Chitwá and Bardá Fiscal Divisions, past the village of Ghátál, till it falls into the Rúpnáráyan near the point where that river touches the eastern boundary of the District. The Silái is only navigable throughout the year for a short distance in its lower reaches, which are within tidal influence. It is fed by two small streams from Bánkurá District on the north,—the Purandar-nadí and Gopa-nadí,—both of which fall into it.

within the Bagrí Fiscal Division. The other and principal feeder of the Silái is the Burf-nadí, which takes its rise in the north-west part of the District, and flows east till it empties itself into the Silái near Nárájol.

THE HALDI RIVER is the next tributary of the Húglí south of the Rúpnaráyan. This river takes its rise within Midnapur, near the western boundary of the District, whence it flows south-east and east till it falls into the Húglí near the Police Station of Nandígáon, in Tamluk Subdivision. It is a large river at its mouth, and is navigable throughout the year as far as its confluence with the Kásái, beyond which it dwindles away into an inconsiderable stream. The principal tributary of the Haldí is the Kásái, which enters the District in the north-west from Mánbhúm, whence it flows an exceedingly tortuous course, first south and south-west, then eastwards past the town of Midnapur, which is situated on its north bank; then north-east, east, and south-east, till it falls into the Haldí, in Tamluk Fiscal Division. During the rainy season the Kásái is navigable from its mouth to some distance above the town of Midnapur, by boats of two tons burden; but in the dry weather it is nowhere navigable for large boats, except for a few miles above its confluence with the Haldí. The Káliághái is another tributary of the Haldí,—a non-navigable stream, which takes its rise in the north-west of the District, and empties itself into the Haldí, near the Police Station of Náráyan garh. There are several other feeders and offshoots of the Haldí river, especially in the marshy country near its mouth, where the streams interlace with each other in all directions. They are, however, simply small watercourses and tidal creeks, and need no description. The Kálfkund is a small tributary of Kásái, and flows into it a short distance below the town of Midnapur.

THE RASULPUR RIVER is the only other tributary of the Húglí within Midnapur District. It takes its rise in the south-west of the District, under the name of the Bágdá river, and flows eastwards and south-eastwards till it falls into the Húglí below 'Cowcolly' Light-house (Geonkháí), a short distance above where that river empties itself into the Bay of Bengal.

THE SUBANREKHA (Suvamarekha) is the only other river of Midnapur requiring notice. It enters the District on the north-west from Dhalbhúm, and passes through the jungle western tract of Midnapur, till it enters Balasor District, and finally falls into the Bay of Bengal.

The banks of the rivers are generally abrupt, as is usual with delta streams and with sandy beds. Both sides of the rivers, but especially those of the Kásái, are closely cultivated with garden crops, mulberries, tobacco, oil-seeds, cotton, etc. In the Rúpnáráyan a very heavy bore occurs at spring tides, the effects of which are felt a considerable distance up the river.

CHANGES IN THE RIVER COURSE.—As stated on a previous page, numerous changes have taken place in the Húglí. According to river survey maps of 1745, the James and Mary Sands, situated just above the confluence of the Rúpnáráyan, have acquired their dangerous character since that date, their formation being principally owing to a change at the mouth of the Dámodar. Changes in the channel of the Húglí estuary have been numerous. Mr. Leonard, C.E., in his valuable Report on the river Húglí, dated 1865, mentions the following alterations in the channels at the mouth of the river : ‘The Gasper Channel had $4\frac{1}{2}$ fathoms in it in 1781 ; then it closed, and ships took an entirely different track ; it opened again in 1817, had only $2\frac{1}{2}$ fathoms on it in 1852, while it is now (1865) a fine channel with a depth of 20 feet. Equally marked changes have occurred in Thornhill’s Channel. Lloyd’s Channel was first discovered in 1815, but is now (1865) closed. When it closed, ships took Bedford’s Channel, part of which is the route still used, but part of it closed in 1863, and now (1865) the Dredge Channel is used. The Inner Rángá-fallá Channel was in use from the earliest known period, up to 1847, when it closed. It opened again, and again closed, while it is now (1865) the channel used by the largest vessels. Many other minor changes have occurred, but enough have been noted to show their general character. Regarding the bars or shoals in these channels while they remain fixed, the Gasper Channel has remained fixed for some years ; but there is a bar across it about two thousand feet long, and with only twenty feet of water on it. The bar is composed entirely of sand, and it changes its position slightly, up-stream or down-stream, according as the flood or ebb tide continues long of great strength. The bars in the Bedford Channel are also composed of sand, but they do not move up and down as the Gasper bar does—they always move down-stream. The bars in the Rángá-fallá Channels are of the very same character ; they too always move down-stream. The way in which these bars are formed, and move after formation, is curious and interesting. All the bars which form in these channels first make their appearance in

the upper part, and gradually move southward until they go right out of the channel. The sand which is deposited below Sigerkhál Point has a considerable tendency to extend its boundary to the eastward, at the expense of the upper part of the Rángá-fallá Channel ; but after it has reached a certain point, the ebb current contrives to cut in at the back of a larger or smaller portion of it, which it slices off ; this slice is rapidly pushed across the channel, where its upper prong joins itself to the Rángá-fallá Sand ; then it moves downward until it loses itself abreast of Mud Point. Of late years these prongs have been formed very frequently, so that one bar has not had time to be driven out of the channel before another has been formed above it ; hence there are two or three bars in the channel at the same time.'

With regard to the causes of these shifting channels and impediments to navigation at the mouth of the Húglí, Mr. Leonard states as follows : 'The section of the Húglí from Kálpí to the sea partakes more of the nature of an estuary than of a river, its sectional area bearing little relation to the quantity of water which it has to discharge, while the upper portion is a well-defined channel, only capable of carrying off the high floods coming down it. The water passing through this upper portion is not enough to scour out the whole of the estuary. When it reaches the wide area, a portion spreads over it, loses some of its velocity, and drops a certain class of its silt ; and the remainder passes on with the ebbing water of the estuary, scouring out one or more channels on its way. These channels become the navigable portion of the estuary : the rest of it remains a wide area of comparatively shallow water, dotted with banks of loose, half-floating sand, which can be moved about as easily as water itself. It can be well understood that a channel formed in this way, through such materials, cannot be of a very fixed character. An unusually strong tide, a gale of wind, or a sunken ship, may give a new direction to the strong portion of the current, and so change it. Now, if the lower portion of the river were not very much too large for the quantity of water which it has to pass, the greater part of it could not remain occupied by sandbanks and shallows. They must be cleared away to make room for the water to pass ; or, if the water passing through were clean water, there would be no source of supply for the banks and shoals now formed. The part not occupied by the current would then be occupied by still water : such is the case in many other estuaries. It may then be fairly concluded that

the causes of the frequent changes in the position of the navigable channels are, (1) the great disproportion between the sectional area of the upper and lower portions of the river, and (2) the large quantity of silt carried down by the fresh water discharge from the upper into the lower section.

'The cause of the formation of bars in the channels while they remain fixed, is more complicated. The general law for the formation of bars or shoals in rivers is well understood. A current carries or rolls a certain class of matter with it to some point where its velocity is diminished, which causes the heaviest part of the matter carried or rolled to drop or to stop, and the result is the formation of a shoal. The reason why the current slackens is also generally ascertainable: the river widens, or a sudden bend occurs, and the consequence is a temporary diminution of velocity. At first sight, these laws hardly seem to apply to the formation of the bars under consideration; but on examining a plan of the river carefully, it will be seen that there is always an increased width of channel or an abrupt bend where the bar is formed,—thus showing that in these particulars they form no exception to the general rule. There are, however, other peculiarities connected with them not usually found in the formation of ordinary river shoals. These are, that the causes for their formation are being constantly and rapidly reproduced; the river is being widened, or the abrupt bend is being made daily; the channels are incessantly being redressed or re-shapen, and hence the bars are constantly re-forming and moving up and down, adapting themselves to the new form of channel. These constant changes in the form of channel are the consequence of the sides not being able to resist the least cutting action of the current. Hence the primary cause and the peculiar nature of the bars is owing to the extreme mobility of the materials forming the sides of all the channels in which they occur. The same description and remarks apply to all the bars formed in the lower section of the river. They do not all move with equal rapidity, but they do move, and change their shape and size, from the same cause that has been described above.'

With regard to the question of the deterioration of the river as a navigable channel, Mr. Leonard states:—'On examining the agencies which are at work in the river, it is difficult to come to any other conclusion than that it must deteriorate, however slowly. First, there is the enormous quantity of silt carried down every year, which must be deposited in or about the *débouché*, lengthening out

the sand-heads, and thus decreasing the scouring power of the stream. The process is, no doubt, very slow, or its effects would be much more marked. Vast quantities of the silt brought down must be carried out far into the deep Bay by some agency,—very likely during the south-west monsoon, when the water of the Bay is almost constantly heaped up towards the river, and an under-current is produced, which sweeps it out,—but yet the tendency of this enormous deposit of silt is to injure the navigation of the river. Secondly, there is the constant, though slow, widening of the lower section of the river, which tends to diminish the scouring power of the current, and also leaves more room for the channels to change from side to side.' Fuller particulars of this and other matters connected with the navigation of the Húglí, as well as a description of the attempts made to improve the river, will be found in my Account of Calcutta.

THE MIDNAPUR HIGH LEVEL CANAL is designed both for the purposes of navigation and irrigation. It extends from the town of Midnapur to Ulubáriá on the Húglí, sixteen miles below Calcutta, and, when completed, will afford a continuous navigable channel of fifty-three miles in length, almost due east and west. This includes the crossings of the rivers Kásái, Rúpnáráyan, and Dámodar. The total length of canal-cutting is forty-eight miles. The following brief account of the undertaking is mainly compiled from a Note by Colonel F. H. Haig, Chief Engineer of Irrigation, Bengal, dated 11th March 1873, and a Note by Colonel Rundall, Inspector-General of Irrigation Works, dated 10th May 1873:—

The works of the main canal, as originally designed, consisted of (1st) a regulating weir, with head-works, at Midnapur. (2d) A navigable canal, carrying also the supply for irrigation, 25 miles long, terminating at Pánchkurá, on the Kásái. This section of the canal is divided into four reaches, by as many locks and falls. (3d) A regulating weir on the Kásái at Pánchkurá, with head-works, and a navigable irrigation canal, 12 miles in length, terminating at Dainán, on the Rúpnáráyan, and locking into that river. (4th) An open navigable channel, 4 miles in length, connecting the Rúpnáráyan with the Dámodar. This channel has no locks at present, the tides having free ingress and egress. (5th) A navigable canal, 7 miles long, locked at both ends, connecting the Dámodar with the Húglí. The three lower sections of the canal, from Pánchkurá to Ulubáriá, have been in use for some years, and the engineers an-

ticipate that it will be opened throughout its entire length during the present year (1873).

The above works have been carried out nearly in accordance with the original designs, the alterations and additions hitherto made during their progress having been inconsiderable. In one case, however,—that of the short canal connecting the Rúpnaráyan with the Dámodar,—it has been found necessary to make an important addition to the original design, viz. to add a lock at each end to exclude the floods, and to retain the water permanently at a proper level and depth for navigation. This alteration will involve a considerable increase of expense. The cost, however, in the opinion of the Chief Engineer, would be less than that of the annual clearance of silt required to keep open navigation, so heavy is the silting which takes place in the present state of the canal; while it would certainly afford far more perfect navigation. The same authority states that it will be necessary also to extend the western end of the canal to a point higher up the Rúpnaráyan, where a more favourable site may be obtained, the present terminus being much choked by a large deposit of silt between the mouth of the canal and the deep channel of the river. The estimated expenditure of this work is returned at £37,500.

Besides the above, since the original design was projected, several additions have been made, and which have tended to swell the cost beyond the sum originally contemplated. These consist of the following :—(1st) A much more minute system of distribution than has anywhere else been considered necessary; (2d) drainage works; (3d) embankment of the north bank of the Kásái, between Midnapur and Pánchkurá; (4th) field surveys of the irrigable area; (5th) cost of land. With regard to these items, Colonel Rundall, Inspector-General of Irrigation, makes the following remarks :—

'1st. This item increases the cost of main distribution from 4s. to 6s. per acre, exclusive of land, or from £32,000 for 160,000 to £57,500 for 200,000 acres; while the minor channels to villages, hitherto always left to be executed by the cultivators, add at the rate of 1s. 6d. per acre (£15,000),—thus making the cost of work only, exclusive of land, £72,500.

'2d. The drainage works are estimated at 6s. per acre, or £60,000. This is confessedly a conjectural sum, and its absolute necessity is not insisted upon in the Chief Engineer's Note, but rather the contrary, as he advocates drainage being carried out

with caution, and only where the want of it is a clear and admitted hindrance to irrigation. In this I quite agree.

'3d. The embankment of the Kásái can scarcely be said to form an integral part of the original scheme, as the irrigation was originally intended to be confined to the tract south of the canal, and therefore the spill of the floods on the north would not necessarily have interfered with the irrigable lands ; but the item is not large enough to affect the financial prospect of the scheme, and need not therefore be discussed.

'4th. The field survey is likewise a comparatively small sum.

'5th. The cost of land is, however, a very heavy item, much more than it was even contemplated by the Government officers would be required. The rate of compensation paid has been very high, and more than has been adjudged in any other locality. This may be partly owing to the Government of Bengal having directed "that the cultivators should be liberally dealt with," and the item has been swelled also by the increased quantity taken up for the extended system of distributaries and village channels.

'These sums collectively add nearly £155,000 to the original estimate. I have already expressed my opinion elsewhere as to the doubtful policy of executing the distribution works in such detail, inasmuch as it swells not only the charge for interest, but also that of maintenance,—without at the same time, as far as can be seen, affecting the disposition of the cultivators to increase the area of irrigation ; but as the Government of Bengal believes the measure will accelerate the adoption of irrigation, I will not say more than that I think it would be well to proceed gradually with it, and encourage the cultivators rather to do the minute works for themselves, than to be dependent on the Government to do everything for them.'

With regard to the cost of the undertaking, the table on the next page exhibits Colonel Rundall's original estimate, and the present estimate of Colonel Haig, dated March 1873.

This estimate is exclusive of interest charges, which Colonel Haig returns as under :—Interest at 4½ per cent. upon £474,300, being total expenditure, including home charges, to end of 1871-72, £47,900 ; loss on working to same date, £3300 ; interest on same amount from 1872-73 to 1875-76 inclusive, £85,300 ; ditto on £294,000 to be expended in 1872-73 to 1875-76, £26,500.

Total interest charges, £163,000, making a grand total cost of the scheme of £931,300.

	Original Estimate.	Present Estimate.
Main Canal Works, common to both estimates,	£205,229 6 0	£242,704 8 0
Additional Works since found necessary, including proposed extension of Canal in Reach No. II., and locks, . . . . .	...	48,233 14 0
Distributaries proper, Works only,	31,330 0 0	60,000 0 0
Village Channels, Works only, . . . . .	...	14,750 0 0
Drainage, . . . . .	...	60,000 0 0
Bridges, . . . . .	...	5,000 0 0
Embankment of the Kásái, . . . . .	...	4,700 0 0
Land, . . . . .	...	85,869 0 0
Field Survey, . . . . .	...	6,200 0 0
Establishment,	57,318 16 0	148,500 0 0
Tools and Plant,	20,000 0 0	34,200 0 0
Home Charges,	58,100 0 0	58,100 0 0
Total,	£371,978 2 0	£768,257 2 0

The difference between Colonel Rundall's original estimate, and the new estimate by Colonel Haig, is partly owing to the fact that Colonel Rundall's estimate included only the cost of the main canal and distributaries. The cost of establishment and tools and plant was estimated by him in one sum for the whole of the Orissa scheme, of which the Midnapur Canal was then considered a part. The following items were also omitted : (1) land, because this was given by Government free to the Irrigation Company ; (2) village channels, as it was believed that the people would construct these themselves ; (3) drainage, which it was hoped would be done by the landholders ; and (4) field survey, bridges over distributaries, and embankment of the Kásái. The total amount already expended on the Midnapur Canal up to the 31st March 1873 amounted to £506,155, exclusive of accumulated interest.

ANTICIPATED FINANCIAL RESULTS.—Until the canal is opened out throughout its entire length, and the whole of the irrigation distributaries and village channels are constructed, any figures as to the probable financial results of the scheme must necessarily to a great extent be mere conjecture. Assuming, however, that 160,000 acres of rice, and 14,400 acres of pulses and oil-seeds, on an average, are irrigable every year, and also that navigation and passenger

traffic will increase, Colonel Rundall is of opinion that the following returns should eventually be reaped :—

IRRIGATION RECEIPTS.

Irrigation of 160,000 acres of rice, at 5s. an acre,	£40,000
Irrigation of 14,400 of winter crops at ditto,	3,600
Irrigation in tidal reaches,	1,000
	<hr/> £44,600

NAVIGATION RECEIPTS.

Toll on 210,000 tons of goods, at 1s. a ton,	£10,500
Toll from 182,400 passengers, at 1½d. per head,	1,140
	<hr/> 11,640
Total receipts,	£56,240
Deduct maintenance and establishment, say	10,650
	<hr/>
Net receipts,	<u>£45,590</u>

This would yield a return of about six per cent. on the total estimated expenditure, exclusive of interest; and of about five per cent. if the accumulated interest be added to the capital. The irrigation rate at present (1873) charged is 3s. an acre in the case of leases taken out prior to 1st May 1873, and 4s. 6d. an acre for all water taken after that date. This rate is fixed for the next four years only, after which it may be raised. With regard to the actual value of the water to the cultivators, it is impossible to speak with confidence until some reliable statistics of the comparative value of irrigated and unirrigated land have been obtained. Colonel Haig is of opinion that, on any calculation, the increased value of land due to irrigation in Midnapur, even without taking into account any increase in the value of paddy as resulting from the opening of the canal, will not be less than £1 an acre, out of which a rate of 6s. an acre would be a very moderate share to pay for the water, if there were no other claimant than the Government to divide the profits.

With regard to this point, the willingness of the cultivators to utilize the waters of the canal, when placed at their disposal, forms an important element in the calculation. The rainfall in Midnapur District is usually large, and the people are averse to change. They also dread the addition which the landlords would assuredly make to their rent on account of the increased returns they would obtain from irrigating their crops; indeed, in part of the District the rent is taken in kind, at the rate of half the produce. Naturally, then, they do not care to make the change, when they would have to pay all the cost and only reap a share of the benefits. Still the civil authorities and every one connected with the canal works agree that there is an improvement, that the old feeling of hostility to irrigation in any shape has died out, and people are more willing to take the water. In some parts of the District the cultivators are beginning so far to appreciate the benefits of the silt-bearing river water, as to drain the rain water out of their fields for the purpose of taking the canal water. In October 1872, the alarm caused by the failure of the rains produced a rush for canal water, and the difficulty then was to provide an adequate supply for the crowd of applicants.

Colonel Haig has pointed out that if an embankment rate could be levied, or an owner's rate, or both, the prospect of the canal would be much improved; but that without these additions to the revenue, it must be some years before the canal can meet the charges for maintenance. Colonel Rundall takes a more hopeful view of the financial prospects of the undertaking than Colonel Haig. The latter officer doubts whether the irrigation scheme in its present form will repay the interest on the outlay; while Colonel Rundall estimates on an ultimate return of five per cent. upon the capital and accumulated interest, or nearly six per cent. if an owner's rate be levied from the landlords of the irrigated fields. Colonel Haig, however, is of opinion that, given a sufficient demand for the water, the scheme might, by reservoirs for storing the water, be extended so as to increase the irrigable area by 110,000 acres of rice land, and 28,800 acres of winter crop land, and thus probably place the scheme upon a remunerative footing. Colonel Haig adds, however, 'All will depend upon the demand for water. Past experience in Midnapur affords no guide for estimating what this is likely to be, —defects of revenue administration and the incomplete state of the distributaries going far to account for the limited and irregular demand that has yet been obtained. The experience of a few more

years will be required before any trustworthy conclusion can be formed upon the subject.

‘ Upon the question which suggests itself,—whether, in the present imperfect state of popular appreciation of the value of the water, it is advisable to push forward the works of distribution and drainage to completion, and whether it might not be better to limit them to a more restricted area until increased demand calls for their extension,—I may remark that the distributaries are already so far advanced that it seems hardly worth while to raise the question as regards them. The executive engineer expects in 1873 to be in a position to supply water to about 120,000 acres, though for some 50,000 acres the village channels and minor distributaries may not be constructed. The Main Canal will also, it is expected, be finished, and opened for navigation by the end of 1873. When so large an outlay has already been incurred, it seems advisable to complete without delay the machinery of distribution so as to bring the water as widely as possible within reach of the cultivators, and so tempt them to its use.’

Unexpected circumstances connected with the printing off of this volume, have given me an opportunity of continuing the history of the Midnapur High Level Canal down to the year 1873-74. I am thus enabled to quote the following, chiefly from the Bengal Administration Report for 1873-74. The Main Midnapur Canal was completed and opened throughout for traffic on the 1st October 1873. The total length of distributaries completed and in progress at the end of the year was $187\frac{1}{2}$ miles, of which 34 had been completed and 18 commenced during the year. The embankment on the right bank of the Kásái, $17\frac{1}{2}$ miles in length, was completed, and good progress was made on the Bhuda Khál sluice for passing off the internal drainage. Irrigation, especially on the Midnapur Canal, has made steady progress. The rules have worked satisfactorily, and there is every prospect of still further improvement. The area irrigated by this canal in 1873-74 was 36,349 acres, against 13,406 acres in 1872-73, and 6028 acres in the year before, thus showing a most welcome inclination on the part of the cultivators to avail themselves of the facilities provided for them. It is stated that the increased area of rice land thus irrigated in Midnapur District may be considered to have provided 10,000 tons of grain in 1874; and the extra supply, not being required in the District itself, was in that year of dearth available for export. The total value of the

grain saved by the Midnapur Canal must have amounted to at least £80,000; and although this amount cannot appear in any regular financial account as part of the profits due to the canal, still, in some measure at least, it represents the value to the country in a single year of drought of this canal, incomplete though it was. The demand on account of water-rates was £7891, 8s., of which £3331, 14s. were collected, £103, 18s. remitted, and £4463, 12s. remained due at the close of the year. The Collector has explained that this large balance is due chiefly to a want of men in the collecting staff. So rapid an increase of irrigation had not been foreseen, and it was not possible to reinforce the establishment in time. In addition, the *tahsildár* of Midnapur died this year, which again reduced the available staff, already too small. The Collector further reported that it would probably also be necessary to remit £1500 of the sum due, and that the greater part of the balance would be collected without difficulty in 1874-75. The navigation tolls during the year amounted to £3410, 8s., and the miscellaneous revenue to £271, 2s., giving a total estimated gross revenue for 1873-74 of £11,572, 18s. The deficiency on the year, exclusive of interest, on the Midnapur Canal, amounted to £4791, 18s.; and the total deficiency up to the 31st March 1874 is stated at £109,213. Up to the same date, the total capital invested, exclusive of interest, was £579,793, 4s.

RUPNARAYAN AND RASULPUR CANAL.—There is also a tidal navigation canal extending from Rúpnráyan to the Rasúlpur river, in the Hijili portion of the District, divided into two reaches. The first reach is called the Bánká Canal, and runs from near the mouth of the Rúpnráyan river to the Haldí river, a distance of eight miles; top width, 72 feet; bottom width, 26 feet; depth, 8 feet. The second section is called the Tiropkíá Canal, and runs from the Haldí to the Rasúlpur river, a length of eighteen miles; top width, 92 feet; bottom width, 64 feet; depth, 8 feet. These canals were completed and opened throughout on the 1st September 1873. They are intended for navigation only; and the tolls taken during the year 1873-74 amounted to £2797, 16s., whilst the miscellaneous revenue was £63, 18s. The deficiency for the year, exclusive of interest, is estimated at £999, 6s. The total deficiency up to the 31st March 1874 was £30,188, 10s.; and the total capital invested up to the same date, exclusive of interest, amounted to £178,353, 10s. The total cost upon all the canals in Midnapur

District, including accumulated interest and all current charges, up to 31st March 1874, has been £897,549, 4s. All the canals are, or will be, when opened throughout, navigable during the whole year.

UTILIZATION OF THE WATER SUPPLY.—The interior of the District is scantily supplied with rivers and water-channels, and it is only in the vicinity of the low-lying eastern tract that any towns are met with of which the inhabitants employ themselves in river traffic. These places are, Nútán Bázár, in the town of Midnapur, on the Kásái river; Kukráhátí, Bálughát, Bálighái, Tamluk, Padambasán, Cowcolly, Nawádá, and Nimtalá. The traffic carried on principally consists in the export of produce to Calcutta, and in the import of a variety of goods of various sorts. None of the non-navigable rivers or streams of Midnapur are anywhere utilized as a motive power for turning machinery; but the Collector states that some of them might be applied to such a purpose by the construction of dams or weirs. There are no rapids on the rivers. Irrigation is practised by means of the Midnapur High Level Canal, which is available both for navigation and irrigation. This canal, when opened throughout its entire length, is estimated to command upwards of 160,000 acres in Midnapur District for the purposes of irrigation. A description of this canal is given on the immediately preceding pages. The Kásái river also affords a considerable amount of direct irrigation when in flood, estimated by the Collector at about 30,000 acres. In the cold season the river is dammed up, and affords irrigation for about 10,000 acres. Dams are also annually constructed across the Silái by the *zamíndárs*, and it is estimated that not less than 15,000 acres of land are irrigated by the water enclosed within these dams in the neighbourhood of Ghátál alone.

FISHERIES.—There are no towns or villages of any importance in Midnapur District exclusively supported by fishing; and the Collector states that it is impossible to estimate the proportion of the population that solely maintain themselves by fishing. The Census Report of 1872 returned the number of Hindu fishing and boating castes in Midnapur District at 90,374, or 3·55 per cent. of the total population. The Muhammadans form only a small proportion of the inhabitants of the District, and would not materially add to the percentage mentioned above. This only represents the number of hereditary fishermen. But nearly all the poorer rural population catch fish for food; and to such an extent is this carried on, that the

breeding fish and very young fry are recklessly destroyed; and in the rainy season, during the inundations, every little rill from a paddy field is made to pass through traps of fine reeds or strong nets. The yield to the Government of the fisheries in the river Húglí within Midnapur District was returned by the Collector in 1870 at £6, 6s. annually. The right to fish in various fresh-water ponds and tanks is let out by the landholders to the peasantry, but no information can be given as to the value of these fisheries. In the rainy season, boatmen of the Magh race come across from the Burmese province of Arákán, land on the south-east coast of Midnapur District, and fish in the Húglí with nets, selling part of the fish to the people, and drying and exporting the rest.

THE LOSS OF LIFE IN THE DISTRICT FROM DROWNING was, according to the police returns, 473 lives in 1864, 527 in 1865, 380 in 1866, 137 in 1867, 397 in 1868, and 428 in 1869; average loss of life for the six years ending 1869, 390 per annum. It is unlikely that these figures represent the total loss of life from drowning, and many cases must take place every year which are not reported to the police, and accordingly are not entered in the returns.

LAND RECLAMATION, ETC.—The principal embankments constructed for the protection of the arable land from inundations, and for the extension of rice cultivation, are as follow:—The Silái river is embanked from Chhattarganj, in Bagrí Fiscal Division, to its confluence with the Rúpnaráyan river, near Ghátál, for a distance of twenty-five miles. The Kásái river is embanked on both sides for a distance of a hundred and twenty miles. The country in the vicinity of the lower reaches of this river lies only from three to five feet above mean sea-level, and the want of a complete system of drainage renders the crops precarious, and engenders a perpetual miasma, causing endemic fevers. These low-lying lands, when kept free of inundation by embankments, are capable of raising the best paddy crops. The west bank of the Rúpnaráyan, within Midnapur District, is embanked from Ghátál to its junction with the Húglí. The east bank of the river, within Húglí District, is only embanked below the Bakhshí Khál. Such embankments are particularly numerous in the marshy Hijili Division of the District; and a list of them, as well as a description of the amount of protection they afford against flood, will be found in the Agricultural Section of this Statistical Account.

LONG-STEMMED RICE is not grown in Midnapur; but a description

of paddy called *kánkrí* grows to a height of from four and a quarter to four and a half feet. The depth of water required for this paddy is from two to two and a half feet in all stages of its growth. Another variety of paddy, called *pánkat*, which attains a height of from three to four feet, requires a depth of water varying from four to six inches when it is transplanted, and from a foot to one and a half feet when it is full grown. The varieties of rice cultivated in marshes are said to now attain a greater length of stem than formerly, and can consequently be grown in deeper water.

LINES OF DRAINAGE.—The general lie or direction of the country for drainage is to the south and east, along the course of the large rivers Rúpnáráyan and Haldí; but the Collector reports that the actual work of drainage is performed, more or less efficiently, by means of embanked water-courses (*kháls*), which are also used for irrigation.

MINERAL PRODUCTS.—Abundance of laterite stone is found in the District, and used for building purposes; also limestone. Salt is likewise plentiful in the tidal country in the south and east of the District. Gold has been found in minute quantities in the river sands. Iron and soapstone also exist.

JUNGLE PRODUCTS.—There are no Government revenue-yielding forests in Midnapur. The principal jungle products are lac, *tasar* silk, wax, *rang* (a red dye obtained from a wood), bark fabrics, a few drugs known to the natives as *pánchan*, resin, firewood, charcoal, peacock feathers, feathers of the Nilkantha bird, and deer and buffalo horns. The castes which subsist by collecting and trading in jungle products are the Mánjhís, Bhumíjs, Santáls, Kurmís, and Lodhás. There are no wide uncultivated pasture grounds in Midnapur, and very few people subsist by pasturing cattle in the forest.

FERÆ NATURÆ.—Tigers, leopards, hyænas, bears, buffaloes, deer, and wild hogs frequent the jungle tracts along the western boundary of the District. In 1850, the amount paid by Government as rewards for the destruction of wild beasts was £4, 12s. od. In 1855, the amount of Government rewards paid for their destruction was £15, 15s. od.; and in 1860, £9, 5s. 6d. During the three years ending 1869, the total reward paid for the destruction of nine tigers, eight leopards, fifteen bears, and two hyænas, was £16, 12s. 3d. The loss of life from wild beasts and snake-bite, from 1864 to 1869, is returned as follows:—1864, wild beasts 34, and snake-bites 464; 1865, wild beasts 57, and snake-bites 530; 1866, wild beasts 60,

and snake-bites 337; 1867, wild beasts 8, and snake-bites 155; 1868, wild beasts 45, and snake-bites 475; 1869, wild beasts 46, and snake-bites 492. Total for the six years, wild beasts 250, and snake-bites 2453. No rewards have ever been paid in Midnapur District for the destruction of poisonous serpents. The smaller sorts of game met with are wild-geese and ducks, snipe, ortolans, teal, hare, etc. No trade is carried on in wild-beast skins; and, with the exception of the fisheries, the *fera natura* are not made to contribute in any way towards the wealth of the District.

POPULATION.—Repeated efforts have been made towards an enumeration of the population of Midnapur. One of the earliest recorded attempts was in 1802, when Sir H. Strachey, Judge and Magistrate of Midnapur, reported that the population of the District amounted to at least one and a half millions. This Census was based on an actual enumeration of a large part of the District, with an estimate for the remainder on the statistics thus elicited. No comparison can be made from the population as then returned and the present population, as the area of the District is not the same. Parts of the present Districts of Húglí and Balasor were then included in Midnapur; while, on the other hand, the tract of country on the west belonged to the neighbouring District of Bánkurá, or, as it was then called, the Jungle Mahals; and all the Hijili portion of the District to the east and south formed a separate Collectorate. In 1837, the population of Midnapur, including Hijili, was estimated at 1,360,699, the basis of calculation being an enumeration of the houses, and estimating the average number of inmates per house to be five. In 1852, Mr. H. V. Bayley, the then Collector, assuming the same average of five persons per house, computed the population at 1,576,835. In 1866, Sir William Herschell, the Collector, in endeavouring to arrive at an enumeration of the people, calculated the area of the cultivated portion of the District to be 2924 square miles; and, allowing four hundred persons to every square mile of cultivated area, he computed the population to amount to 1,169,600, exclusive of the town of Midnapur, which was estimated at 30,000, making a total population for the whole District of 1,199,600 souls. In these calculations no attempt appears to have been made to take into account a difference in the number of inhabitants per house in the towns and in the rural population, and it is not believed that any material difference exists in this respect.

A careful and more exact Census was taken by authority of

Government, simultaneously throughout the District, on the 27th January 1872. The agency employed consisted of the head-men of villages, locally known as *mukhyas*, who were appointed as enumerators. The landholders or their agents were required to assist the enumerators in preparing their house registers, which were attested by them in every case. In the wilder tracts of the District, much of the work had to be done by the police, the people being wholly illiterate. The results disclosed a total population of 2,540,963 souls, dwelling in 12,962 villages and 446,045 houses; the average pressure of population on the soil being 500 persons per square mile. The officers of the District are of opinion that the results obtained are fairly accurate.

The most densely populated parts of the District are the Police Circles bordering upon Húglí District, viz.: Chandrakoná, Ghátál, Dáspur, Pánchkurá, and Tamluk, in every one of which the population is over 850 to the square mile. From these border *thánás*, a spur of densely populated country runs south-west almost as far as Dántun Fiscal Division bordering on Balasor; and embracing the Police Circles of Debrá, Sabang, and Patáspur. The north-western half of the District, which includes the jungle tract, is the most sparsely populated, the average varying from 250 to 300 persons per square mile; but in the centre of the District the average rises to 450 and 500. The southern Police Circles, which border on the estuary of the river Húglí, present a curious variety in regard to their average density. Commencing from opposite Kálpí, Sutáhátá has 482 persons to the square mile; Nandigáon, across the Haldí, 689; Khejirí (Kedgeree), 480; Contai (Kánthi), 544; and Raghunáthpur, 433. The next Police Circle, Jaleswar, in the Balasor District, has 327 only. Mr. Beverley, in his Census Report, thinks that the history of the Government salt manufacturing settlements in this tract may possibly throw some light upon this unequal distribution of the inhabitants.

The table on the following page illustrates the density of the population in each Police Circle and Subdivision, with the number of villages, houses, pressure per square mile, etc., in each. The table is reproduced *verbatim* from the Census Report of 1872.

POPULATION, CLASSIFIED ACCORDING TO SEX AND AGE.—The total population of Midnapur District consists of 1,257,194 males, and 1,283,769 females: total, 2,540,963. The proportion of males

[Sentence continued on page 44.

ABSTRACT OF THE POPULATION, AREA, ETC., OF EACH SUBDIVISION AND POLICE CIRCLE (THANA)
IN MIDNAPUR DISTRICT, 1872.

Subdivision.	Police Circle.	Area in Square Miles.	Number of Villages, Mauzas, or Townships.	Number of Houses.	Total Population.	Averages according to the Census Report.					
						per Sq. Mile.	Villages, Mauzas, or Townships, per Sq. Mile.	Persons per Village, or Mauza, or Township.	Houses per Sq. Mile.	Persons per House.	
1. HEADQUARTERS,	Midnapur,	361	1185	32,933	172,672	478	3.28	146	91	3.2	
	Nariyangarh,	300	828	23,543	129,553	432	2.76	156	78	5.5	
	Dantun,	217	592	19,329	112,372	518	2.73	190	89	5.8	
	Gopiballabhpur,	516	1113	24,001	120,310	233	2.16	108	47	5.0	
	Jharguaon,	169	493	8,133	45,560	269	2.92	92	48	5.0	
	Bhimpur,	467	698	13,303	74,871	159	1.49	106	28	5.5	
	Sáibani,	207	505	9,194	50,860	246	2.43	101	44	5.0	
	Kespur,	229	839	19,381	108,989	476	3.66	130	85	5.0	
	Dáspur,	104	379	24,044	136,359	1311	3.64	360	231	5.7	
	Debra,	109	679	20,332	110,747	1016	6.23	163	187	5.4	
	Sabang,	283	454	38,277	214,755	759	1.60	473	135	5.0	
	<i>Subdivisional Total,</i>		2962	7765	232,470	1,276,388	431	2.62	164	78	5.5
	2. TAMLUK,	Tamluk,	77	249	11,375	77,341	1004	3.23	311	148	6.8
Páncukurá,		164	559	24,332	163,915	999	3.41	293	148	6.7	
Maslandpur,		111	217	10,874	64,188	578	1.95	206	98	5.9	
Sutáhattá,		111	220	8,479	53,546	482	2.00	234	76	6.3	
Nandigson,		158	268	17,378	108,827	689	1.70	406	110	6.2	
<i>Subdivisional Total,</i>		621	1522	72,438	467,817	753	2.45	307	117	6.5	

ABSTRACT OF THE POPULATION, AREA, ETC., OF EACH SUBDIVISION AND POLICE CIRCLE (THANA)
IN MIDNAPUR DISTRICT, 1872—continued.

Subdivision.	Police Circle.	Area in Square Miles.	Number of Villages, Mauzas, or Townships.	Number of Houses.	Total Population.	Averages according to the Census Report.				
						Persons per Sq. Mile.	Villages, Mauzas, or Townships per Sq. Mile.	Persons per Village, Mauza, or Township.	Houses per Sq. Mile.	Persons per House.
3	CONTAI (KANTHI).	226	699	19,538	122,857	544	3.09	1791	86	6.3
		126	327	10,295	54,579	433	2.60	167	82	5.3
		122	320	11,445	57,898	475	2.62	181	94	5.1
		75	119	5,900	30,003	486	1.99	303	79	6.1
		117	367	12,877	81,123	693	3.31	210	110	6.3
		184	349	17,571	89,812	488	1.90	257	95	5.1
	<i>Subdivisional Total.</i>	850	2201	77,626	412,272	520	2.59	201	91	5.7
4	GARHETA.	437	1005	24,941	145,264	332	2.30	145	57	5.8
		121	278	20,174	106,480	886	2.30	383	167	5.3
		91	191	18,396	102,742	1199	2.10	538	202	5.6
		649	1474	63,511	354,486	546	2.27	240	98	5.6
	<i>Subdivisional Total.</i>	649	1474	63,511	354,486	546	2.27	240	98	5.6
	DISTRICT TOTAL.	5082	12,962	446,045	2,540,963	500	2.55	196	88	5.7

to the total population is 49·5 per cent., and the average density of the population, 500 per square mile. Classified according to age, the Census gives the following results :—Hindus : under twelve years of age, males, 405,604 ; females, 321,292 : above twelve years, males, 727,686 ; females, 830,986. Muhammadans : under twelve years of age, males, 31,286 ; females, 24,844 : above twelve years, males, 44,407 ; females, 56,510. Christians : under twelve years of age, males, 130 ; females, 121 : above twelve years, males, 189 ; females, 173. Other denominations not separately classified, consisting of aboriginal tribes : under twelve years of age, males, 20,713 ; females, 18,355 : above twelve years, males, 27,179 ; females, 31,488. Population of all religions : under twelve years of age, males, 457,733 ; females, 364,612 : above twelve years, males, 799,461 ; females, 919,157. The small proportion of female children to male children, and the excessive proportion of females above twelve years to males above twelve years, is probably due to the fact that girls are considered to arrive at womanhood at an earlier age than boys reach manhood, and classified as adults accordingly. The proportion of the sexes of all ages is probably correct. The number of insanes in Midnapur District is returned as follows in the Census Report :—Insanes : males, 259 ; females, 33 : total, 292, or 0·115 per cent. of the population. Idiots : males, 54 ; females, 13 : total, 67, or 0·026 per cent. of the population. Deaf and dumb : males, 715 ; females, 218 : total, 933, or 0·367 per cent. of the population. Blind : males, 1351 ; females, 689 : total, 2040, or 0·803 per cent. of the population. Lepers : males, 1850 ; females, 277 : total, 2127, or 0·837 per cent. of the population. Total infirmities, 5459, or 2 per cent. of the population.

POPULATION ACCORDING TO OCCUPATION.—The following paragraphs relating to the occupations of the people are condensed from the District Census Compilation, but they are unavoidably imperfect in many respects, and must be accepted subject to the same caution as that given in my Statistical Accounts of the 24 Parganá and other Districts in the Presidency Division.

OCCUPATION OF MALES.—**CLASS I.**—Persons employed under Government, municipal, or other local authorities :—Government police, 770 ; rural police or village watchmen, 7586 ; Covenanted English officers, 7 ; Subordinate Judicial officers, 6 ; Subordinate Executive officers, 4 ; Educational officer, 1 ; Public Works officials, 18 ; Post Office clerks, 13 ; Ecclesiastical officers, 2 ;

Excise officials, 72; clerks, 18; Municipal officer, 1; *piyádds* or messengers, 129. Total of Class I., 8627.

CLASS II.—Professional persons, including professors of religion, education, law, medicine, fine arts, surveying, and engineering:—
 (a) Religion—Hindu priests (*purshits*), 12,699 in number; spiritual guides (*gurus*), 433; *Achárjyas*, astrologers and fortune-tellers, 196; Muhammadan priests (*mullás*), 96; pilgrim guides (*pandás*), 369; priests of family idols (*pujhárís*), 662; expounders of the *puráns* or Sacred Law (*kathaks*), 48. (b) Education—Schoolmasters, 1917; teachers of Sanskrit (*pándits*), 49; professors of *tois*, or indigenous Sanskrit schools (*adhyápakas*), 46; Muhammadan clerks and interpreters (*munshís*), 11; students and scholars, 964. (c) Law—Attorneys, 8; pleaders, 96; law agents (*mukhtárs*), 388; stamp vendors, 25. (d) Medicine—Doctors, 65; Hindu medical practitioners (*kabirdís*), 1510; vaccinators, 30; apothecaries, 4; cow-doctors, (*gobaidyas*), 78; men-midwives, 41; compounders, 33. (e) Fine arts—Musicians, 2032; painters, 1022; singers, 721; dancers, 6; jugglers, 64. (f) Surveying and engineering—Surveyors or *ámíns*, 485; overseers, 30. Total of Class II., 24,128.

CLASS III.—Persons in service, or performing personal offices:—Personal servants, 15,960; cooks, 462; barbers, 6175; washermen (*dhobás*), 6306; sweepers (*mihtars*), 235; water-carriers (*bhistis*), 63; gardeners, 844; genealogists (*ghataks*), 3; doorkeepers (*darwáns*), 665; corpse-bearers (*murá farásh*), 20; unspecified, 378. Total of Class III., 31,111.

CLASS IV.—Persons engaged in agriculture and with animals:—
 (a) In agriculture—Landholders (*zámíndárs*), 988; large leaseholders (*ijáráddárs*), 337; holders of land on military tenure (*ghát-wáls*), 52; subordinate landlords (*tálukddárs*), 2225; permanent leaseholders (*patníddárs*), 144; cultivators with rights of occupancy, 1574; holders of small estates (*mahaldárs*), 2; small landholders (*jotddárs*), 402; *gánthíddárs*, 53; ordinary cultivators, 458,515; land stewards (*gumáshtás*), 757; rent-collectors (*tahsildárs*), 698; village accountants (*patwáris*), 4; holders of land on a tenure of military or police service—the ancient police of Midnapur—(*pdáiks*), 297; village head-men (*mandals*), 192; rent-collectors in charge of estates owned by absentee landlords (*ndábs*), 79. (b) With animals—Horse dealers, 9; cattle dealers, 854; goat dealers, 163; pig dealers, 56; buffalo dealers, 13; cowherds, 3902; elephant-drivers (*mdáhs*), 26; grooms, 546; grass-cutters, 16; farriers and shoeing

smiths (*nálbandís*), 3; hunters (*shikáris*), 42. Total of Class IV., 471,949.

CLASS V.—Persons engaged in commerce and trade:—(a) In conveyance of persons and goods—Carters, 164; bullock drivers, 242; palanquin bearers, 5182; *khalásís*, 3; seaman, 1; boatmen, 6509; warehouse keepers (*dratdárs*), 65; weighmen, 255. (b) In keeping and lending money, and in the sale of goods—Bankers and *mahájans*, 2415; pawnbrokers (*poddárs*), 11; money-changers, 9; cashiers, 11; money-lenders, 1408; produce merchants (*sauddárgars*), 48; merchants in special goods, 167; petty dealers (*bepáris*), 9; storekeepers and commission agents (*golddárs*), 123; shopkeepers, 10,869; petty shopkeepers (*mudís*), 1338; grocers and spice dealers (*banids*), 440; hawkers, 183; dealers in miscellaneous goods, 2305; brokers (*daldís*), 53; clerks, 3; writers (*karánís*), 274; out-door clerks (*sarkárs*), 517; vernacular clerks and writers (*muharrirs*), 1235; managers, 11. Total of Class V., 33,850.

CLASS VI.—Persons employed in mechanical arts, manufactures, and engineering operations, and in the sale of goods manufactured or prepared for consumption:—(a) Manufactures—Indigo manufactures, 6. (b) Constructive arts—Contractors, 62; bricklayers (*rámistrís*), 1394; brickmakers, 79; sawyers, 404; carpenters, 1621; thatchers, 231; boat builders, 173; dock keeper, 1; ship carpenters, 5. (c) Miscellaneous Artisans—Blacksmiths (*kámárs*), 3235; braziers and coppersmiths (*kánsáris*), 2927; tinmen, 2; goldsmiths, 2883; gold washers, 21; potters (*kumárs*), 4956; glass maker, 1; lime vendors, 138; comb makers, 74; mat makers, 618; basket makers, 2122; whip maker, 1; toy makers, 5; hookah makers, 74; grindstone makers, 207; musical instrument makers, 8; makers of lacquered ware, 87; makers of garlands, 275; carvers, 2; gilders, 4; shell carvers, 388; cane workers, 41; makers of looms, 2; cotton weavers, 26,276; wool weavers, 34; coir weavers, 16; shoemakers, 886; cloth vendors, 4701; umbrella makers, 2; waxcloth dealers, 4; gunny-bag makers, 192; net makers, 44; thread sellers, 265; blanket makers, 879; printer, 1; stationers, 13; bookbinders (*daftrís*), 35; booksellers, 13. (d) Dealers in vegetable food—Oil sellers, 3595; grain sellers, 686; flour sellers, 26; rice sellers, 146; spice sellers, 14; grain huskers, 308; bakers, 21; grain parchers, 637; costermongers, 679; confectioners, 697; sellers of *gur*, 439; sellers of honey, 4; sellers of sugar, 28. (e) Dealers in animal food—Butchers, 47; fishermen, 4000; fish-

mongers, 6243; milkmen, 2452; poulterers, 84. (*f*) Dealers in drinks—Toddy sellers, 36; liquor shopkeepers, 143. (*g*) Dealers in stimulants—Tobacco sellers, 352; *pán* sellers, 1057. (*h*) Dealers in perfumes, drugs, medicines, etc.—Salt sellers, 270; gunpowder sellers, 49; *tiká* sellers, 8. (*i*) Dealers in vegetable substances—Firewood sellers, 744; charcoal sellers, 132; cow-dung sellers, 3; bamboo sellers, 113; thatch sellers, 43; rope sellers, 5. (*j*) Dealers in animal substances—Hide dealers, 1165. Total of Class VI., 79,634.

CLASS VII.—Miscellaneous persons not classed otherwise:—Pensioners, 14; beggars and paupers, 18,998; apprentices, 12; labourers, 115,308; unemployed, 15,830; male children, 457,733. Total of Class VII., 607,895. Grand total of males, 1,257,194.

OCCUPATIONS OF FEMALES.—The general caution prefixed to the paragraphs on the occupations of the people applies with particular force to this section. Class I., *nil*. Class II., Professional persons:—Priestesses, 741; schoolmistresses, 32; midwives, 194; Muhammadan female doctors (*hakíms*), 58; female vaccinator, 1; female cow-doctors, 32; musician, 1; singers, 33; jugglers, 2; dancers, 3; painters, 33—total, 1130. Class III., Females in service, or performing personal offices:—Female domestic servants, 2552; cooks, 65; female gardeners, 93; female barbers, 232; washerwomen, 742; female sweepers (*mihtránís*), 91; prostitutes, 1339—total, 5114. Class IV., Females employed in agriculture and with animals:—Female landlords (*samindárs*), 381; female permanent leaseholders (*patnidárs*), 11; female subordinate landlords (*tdlukdárs*), 134; female large leaseholders, 2; female cultivators, 13,229; female goat dealers, 87; female pig dealers, 2; female poultry dealers, 3; female cowherds, 25; female grass cutters, 73—total, 13,947. Class V., Females engaged in commerce and trade:—Carriage owners, 3; money-lenders, 30; retail dealers, 186; shopkeepers, 1566—total, 1785. Class VI., Females employed in manufactures, and in the sale of goods manufactured or prepared for consumption:—Dealers in pottery, 240; dealers in lime, 10; basket makers, 121; mat makers, 113; broom sellers, 2; silk dealers, 31; spinners, 6717; weavers, 552; ornament sellers, 37; shoemakers, 35; thread sellers, 13; cloth vendors, 14; makers of lacquered ware, 8; grain dealers, 21; rice dealers, 90; costermongers, 199; dealers in spices, 57; oil dealers, 260; confectioners, 73; flour sellers, 3; grain parchers, 66; grain huskers,

6970; sellers of *gur*, 7; fish-women, 1381; milk sellers, 246; butter sellers, 7; egg sellers, 20; toddy sellers, 2; spirit sellers, 8; tobacconists, 35; *pán* sellers, 205; *ganjá* sellers, 7; tooth-powder sellers, 2; charcoal sellers, 5; cow-dung sellers, 124; firewood sellers, 522; sellers of leaves, 96; sellers of straw and grass, 14; hide dealers, 5—total, 18,317. Class VII., Miscellaneous females not classed otherwise:—Female beggars and paupers, 6273; female labourers, 6809; unemployed adult females, 865,782; female children, 364,612—total, 1,243,476. Grand total of females, 1,283,769.

ETHNICAL DIVISION OF THE PEOPLE.—Midnapur being an intermediate District between Bengal and Orissa, the population possess characteristics common to the people of both provinces. Mr. H. V. Bayley, in his valuable ms. 'Memorandum on Midnapur,' dated January 1852, thus describes the population:—'The people of Midnapur proper are generally composed of an amalgamated race, who can neither be called Bengalis nor Uriyás, but who are a mixture of both. It is not intended to convey by this remark the impression that the mixture observable has been effected so much by intermarriage between the two classes, as by the adoption of manners and habits common to both. The people of Midnapur proper are of Bengal *and* Orissa. The fact is, that Midnapur is an intermediate District which the natives of Orissa cross to go to Bengal, and *vice versa*. Hence its inhabitants consist of emigrants from both parts, who have by long association with each other lost the salient points of their respective nationalities. But the Bengali emigrants appear evidently to form only a small proportion of the people, from the great prevalence of Uriyá family names among all classes of society, as Behará, Girí, Jáná, Mahápátra, Mahikup, Máhántí, Pandá, Patnáik, etc. The common use also of Khás-khail and Sáwant as family names points to another class, viz. Marhattás. The term Khás-khail was applied to soldiers of the Rájá's body-guard in the time of Marhattá independence. Sáwant was the family name of a numerous and distinguished class of Marhattás. One thing, however, is apparent, viz. that the wealthy landed classes and other gentry of the country are insensibly approximating to the manners of the same class in Bengal.'

Mr. C. F. Magrath's District Census Compilation for Midnapur thus classifies the ethnical divisions of the people. The list of Hindu castes will be reproduced on a subsequent page, but arranged

ETHNICAL DIVISION OF POPULATION. 49

in a different order from that given here, according to the rank in which they are held in social esteem :—

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.	NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
I.—NON-ASIATICS.		<i>Semi-Hinduized Aboriginals.—Continued.</i>	
<i>Europeans—</i>		Bind,	41
English,	82	Buná,	6
Irish,	25	Chain,	501
Scotch,	12	Chámár and Muchí,	8,544
Welsh,	1	Chandál,	24,713
Dane,	1	<i>Abdshan</i> ,	10,092
German,	1	Dom,	18,610
Total of Non-Asiatics,	122	<i>Turt</i> ,	4
II.—MIXED RACE.		Dosadh,	58
Eurasian,	93	Ghásí,	66
III.—ASIATICS.		Hári,	21,963
<i>A.—Other than Natives of India and Burmah.</i>		Káorá,	4,048
Afghans,	17	Karangá,	5,662
Armenians,	2	Bhairá,	2,411
Total,	19	Kodmál,	20,031
<i>B.—Natives of India and Burmah.</i>		Máhillí,	3,497
1.—Aboriginal Tribes.		Mál,	5,726
Bhar,	758	Mihtar,	3,904
Bhumij,	35,344	Musáhar,	58
Gond,	110	Pán,	9,709
Khariá,	2,399	Pásí,	643
Kharwár,	80	Rajbansi Koch,	17
Kol,	427	Rájwár,	1,525
Nat,	205	Shikári,	143
Puráon,	385	Total,	244,705
Sabar,	1,951	3.—Hindus.	
Santál,	96,921	(i.) SUPERIOR CASTES.	
Uráon,	528	Bráhmañ,	118,700
Total,	139,108	Rájput,	17,003
2.—Semi-Hinduized Aboriginals.		<i>Ghátwál</i> ,	16
Bágdí,	76,285	<i>Khandáit</i> ,	781
Bábeliá,	38	Total,	136,500
Báurí,	14,946	(ii.) INTERMEDIATE CASTES.	
Bediyá,	128	Baidya,	2,490
Bhuiyá,	11,336	Bhát,	1,484
		Káyasth,	101,663
		Total,	105,637
		(iii.) TRADING CASTES.	
		Agarwálá and Márwári,	13
		Baniá,	600
		Gandhbanik,	10,140

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.	NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
(iii.) TRADING CASTES. —Continued.		(vii.) CASTES ENGAGED CHIEFLY IN PERSONAL SERVICE.—Continued.	
Khatri,	1,268	Káhár,	1,193
Subarnabanik,	11,499	Lodhá,	3,574
Total,	23,520	Total,	90,195
(iv.) PASTORAL CASTES.		(viii.) ARTISAN CASTES.	
Gareri	236	Chitrakar,	20
Goalá,	44,163	Darzi,	437
Total,	44,399	Kámár,	32,348
(v.) CASTES ENGAGED IN PREPARING COOKED FOOD.		Kánsári,	2,224
Gánrár,	328	Kumar,	29,122
Madak,	6,010	Láheri,	206
Total,	6,338	Sánkhári,	1,513
(vi.) AGRICULTURAL CASTES.		Sikalgir,	198
Aguri,	251	Sonar,	5,748
Balái,	6,810	Sunri,	7,418
Báruí,	7,001	Sutradhar,	10,585
Támil,	9,869	Teli,	70,339
Chásá Dhopá,	67	Kalu,	4,901
Dalui,	1,425	Total,	165,059
Gharui,	14,868	(ix.) WEAVER CASTES.	
Golá,	2,532	Hansi,	208
Kaibartta,	692,140	Jogi and Patná,	4,576
Koeri,	2,140	Juláhá or Jolá,	191
Krishán,	25,082	Kapáli,	130
Kurmi,	40,410	Kotál, etc.,	121
Máli,	6,156	Rangini,	874
Mahat,	4,481	Sukli,	29,353
Ráju,	47,082	Tánti,	106,317
Sadgop,	157,998	Total,	141,770
Sarak, etc.,	351	(x.) LABOURING CASTES.	
Sud,	23	Beldár,	102
Total,	1,018,686	Chunári,	645
(vii.) CASTES ENGAGED CHIEFLY IN PERSONAL SERVICE.		Korá,	6,181
Behará and Duliya,	8,175	Kástá, etc.,	9,270
Dhanuk,	26	Náik,	7,860
Dháwá,	82	Sámanta,	775
Dhobá,	34,896	Total,	24,833
Hajjám and Nápit,	42,249	(xi.) CASTES OCCUPIED IN SELLING FISH AND VEGETABLES.	
		Kunjrá,	38
		Mátiá,	1,059
		Total,	1,097

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.	NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
(xii.) BOATING AND FISHING CASTES.		(xv.) PERSONS OF UNKNOWN OR UNSPECIFIED CASTES,	
Jáliá,	29,450		25,346
Keut,	2,553		
Mahádanda,	2,064	GRAND TOTAL OF HINDUS,	1,902,759
Mála,	1,895		
<i>Mánjhi</i> ,	37,909	4.— <i>Persons of Hindu Origin not recognising Caste.</i>	
Pátni,	195	Aghori,	72
Pod,	4	Vaishnav,	96,178
Tior,	16,304	Nánaksháhi,	43
		Sanyási,	436
		Native Christians,	396
Total,	90,374	Total,	97,125
(xiii.) DANCER, MUSICIAN, BEGGAR, AND VAGABOND CASTES.		5.— <i>Muhammadans.</i>	
Báiti,	1,982	Juláhá or Jolá,	899
Others,	462	Mughul,	13
		Pathán,	600
Total,	2,444	Sayyid,	33
(xiv.) PERSONS ENUMERATED BY NATIONALITY ONLY.		Shaikh,	4,907
Bengali,	5,773	Unspecified,	150,578
Hindustáni,	70	Total,	157,030
Madrási (Telinga),	566	6.— <i>Burmese.</i>	
Sikh,	194	Magh,	2
Uriyá,	19,958	TOTAL OF NATIVES OF INDIA,	2,540,729
Total,	26,561	TOTAL OF ASIATICS,	2,540,748
		GRAND TOTAL,	2,540,963

ABORIGINAL AND HILL TRIBES.—The aboriginal and hill tribes met with in Midnapur District are the Bhars, Bhumis, Gonds, Khariás, Kharwárs, Kols, Nats, Puráons, Sabars, Santáls, and Dhángárs or Uráons. Their respective numbers have been already given in the foregoing table; the total number, as ascertained by the Census of 1872, being 139,108. The semi-Hinduized aborigines, numbering 244,705 souls, will be again referred to on a subsequent page, classified in my list of the Hindu castes in Midnapur. The aboriginal tribes chiefly belong to the jungles and hills of Chhotá Nágpur and Bánkurá, and principally inhabit the sterile jungle tracts in the west and south-west of the District.

IMMIGRATION AND EMIGRATION.—A large number of Santáls come to the District for employment as labourers, as also a number of Madrásís, who are employed on the irrigation works. They do not keep themselves apart from the people of the District, nor do they live in separate villages of their own, but they do not permanently settle; and when they have made a little money, they return to their country. As in other Districts of Western Bengal, a large class of the poorer inhabitants go abroad to seek service and other employment, and after a while return to their homes. Those who go as labourers on the tea gardens of Assam, Silhet, and Káchár, however, do not as a rule return to Midnapur. The following figures, taken from the Magistrate's Office records, show the extent of emigration from Midnapur to the tea Districts during the six years ending 1869:—Number of emigrants in 1864, 973; in 1865, 1047; in 1866 (the year of the famine), 4542; in 1867, 2023; in 1868, 579; and in 1869, 434.

CASTES.—The following is a list of 110 Hindu castes met with in Midnapur District, arranged as far as possible in the order in which they rank in local public esteem, and showing their occupation, etc. The figures indicating the number of each caste are extracted from Mr. C. F. Magrath's District Census Compilation for Midnapur. The following nine rank highest:—(1) Bráhmaṇ, members of the priesthood; many are also landholders, and others are employed in Government or private service; number in 1872, according to the Census, 118,700. (2) Kshattriya, the second or warrior caste in the ancient Hindu social organization. At the present day, however, it is believed that there are no pure Kshattriyas in Bengal, and the caste given as 'Khatri' in the Census Report is the great trading class of Northern India. Their number is returned at 1268. (3) Rájput, employed in military service, and as guards, policemen, and doorkeepers. They claim to be Kshattriyas by descent; 17,003 in number. (4) Ghátwál, not a separate caste, but a class claiming to be Kshattriyas, and whose profession it was, in olden days, to guard the hill passes, and prevent the incursion of hostile or predatory tribes on to the plains. In return for this service, they received grants of land, which they held rent free. They still hold their lands free of assessment, but their military occupation has been exchanged for that of a superior sort of police, whose duty it is to keep the wild jungle people in order. Number in 1872, in Midnapur, 16. (5) Khandáit, literally 'swordsmán,' a local caste of

Orissa and Midnapur. Under native rule, they were employed as a militia by the chiefs and landholders. At the present day, they occupy themselves as cultivators, policemen, messengers, etc. In Midnapur District, they numbered 781 in 1872. (6) Baidya; hereditary physicians; but many of them have now abandoned their caste occupation for that of Government officials, landed proprietors, or other respectable employments; 2490 in number. (7) Kayasth, employed as Government servants, *samindári* revenue collectors, etc. Some of them are also well-to-do landholders, and the rest are employed in various other respectable occupations; 101,663 in number. (8) Bhát; heralds and bards. Their profession is to carry letters of invitation on occasions of marriages and funeral obsequies. They claim to be fallen Bráhmans, and wear the sacred thread; but it is doubtful whether they have any well-founded claim to Bráhmanhood. They are classified separately in the Census Report of 1872, in which their number is returned at 1484. (9) Márwári, or Agarwálá; a wealthy class of up-country traders, who claim to belong to the Kshattriya caste; number in Midnapur District in 1872, 13.

Next in rank come the following fourteen pure Súdra castes, from whose hands a Bráhman can take water or uncooked food without injury to his caste. Originally, these pure Súdra castes were only nine in number, called *nabasáks*; but some of them, such as the Baniás, have split up into two or three divisions, all of whom are held in equal esteem; and others, such as the Tills or Telfs, have, by their influence and wealth, forced themselves forward from a lower class into a position of social respectability:—(10) Nápit; barbers; 42,249 in number. (11) Kámár; blacksmiths; 32,348 in number. (12) Kumár; potters and makers of earthen idols; 29,122 in number. (13) Tili or Telf; oil-pressers and sellers by caste occupation. They have now, however, abandoned their hereditary profession, and become landholders, traders, and grain-merchants. They are nearly all well-to-do, and have some very wealthy men among them. Number in 1872, 70,339. (14) Támbulí or Támlí; originally *pán* growers and sellers by caste occupation, but now principally employed as grain-merchants or traders, and also as landed proprietors; 9869 in number. (15) Sadgop; the highest among the cultivating castes. Some of them are small landed proprietors who till their own lands. Very few have abandoned their hereditary occupation of agriculture, and as a caste they are well-to-do. Number in 1872, in Midnapur

District, 157,998. (16) Bárui; growers and sellers of betel-leaf; 7001 in number. (17) Máli; gardeners and flower-sellers; 6156 in number. (18) Baniás; traders and grain-dealers; 600 in number. (19) Gandhabanik; grocers and spice-dealers; an offshoot of the Baniás; 10,140 in number. (20) Sánkhári; shell-cutters and makers of shell bracelets; an offshoot of the Baniá caste; 1513 in number. (21) Kánsári; braziers and coppersmiths; another branch of the Baniá caste; 2224 in number. (22) Agurí; a respectable mixed caste lately sprung up, following agriculture as a profession; 251 in number. (23) Krishán. This is not a separate caste, but rather a poorer class of the Sadgop caste, who work as agricultural day-labourers, and are paid by a share of the crop; 25,082 in number.

The intermediate Súdra castes, who are neither esteemed nor despised, but who have some claim to respectability, are the following nineteen:—(24) Garerí; an up-country pastoral caste; number in Midnapur, 236. (25) Goálá; milkmen and cowherds; 44,163 in number. (26) Gánrár; sellers and preparers of parched rice; 328 in number. (27) Madak; sweetmeat makers; 6010 in number. (28) Kaibartta; cultivators. This is by far the most numerous caste of Midnapur District, and is returned by the Census of 1872 as numbering 692,140 souls. The Kaibarttas are probably one of the aboriginal tribes of the Chhotá Nagpur hills, west of Orissa and Midnapur, and are supposed to be the same as the Bhuiyás, an undoubtedly aboriginal tribe still inhabiting the Chhotá Nágpur hills and jungles. They embraced Hinduism at a very early period after the Aryans made their appearance in Bengal, and from their numbers and strength, succeeded in demanding and obtaining admission to the Hindu community on honourable terms. In ancient times, a number of Kaibarttas were made into Bráhmans, and their descendants are numerous in Húglí District. The Kaibarttas of Midnapur are divided into two classes. The first follow cultivation as their occupation, and are looked upon with only less respect than one of the pure Súdra castes; while the other live by fishing, and are accordingly classed with one of the very low castes. One section of the cultivating Kaibarttas are silk-producers, and are called Tutíá Kaibarttas, from the *tut* or mulberry tree, which they cultivate largely as food for the worms they rear. Midnapur District has sent many colonies of Kaibartta emigrants to the neighbouring Districts of Húglí and Bardwán, where they muster very strong along the banks of the Dámodar river; and also to the 24 Párganás, on the other side of

the Húglí river. The Rájá of Tamluk is a Kaibartta by caste; and as confirmatory of the opinion that the Kaibarttas and the aboriginal Bhuiyás were the same, an old tradition relates how Kalú Bhuiyá, the founder of the family, usurped the throne, and was supported by a large number of Kaibarttas. The family name of the Tamluk Kaibartta Rájás is Bhuiyá. (29) Dalui; agriculturists; 1425 in number. (30) Gharui; cultivators; 14,868 in number. (31) Golá; cultivators; 2532 in number. (32) Vaishnav. This is not a caste, but rather a class of Hindus—followers of the teachings of the reformer Chaitanya. Nearly all the males of this sect are religious mendicants, and many of the women prostitutes. Number in Midnapur District in 1872, 96,178. (33) Chásá Dhopá; cultivators; 67 in number. (34) Koerí; cultivators. Given as a separate caste in the Census Report, but probably a branch of the Kaibarttas; 2140 in number. (35) Mahat; cultivators; a caste said to be peculiar to Midnapur; 4481 in number. (36) Ráju; cultivators, and also employed in service; 47,082 in number. (37) Sarak; cultivators; 351 in number. (38) Sud; cultivators; 23 in number. (39) Balái; cultivators; 6810 in number. (40) Tántí; weavers; 106,317 in number. (41) Sonár or Swarnakár; goldsmiths and jewellers; 5748 in number. (42) Subarnabanik or Sonárbanaiá; dealers in gold and silver, and also bankers. They are an offshoot of the Baniá caste, but have become degraded in public esteem from their habit of filching from gold and jewels entrusted to their care, or to be manufactured into ornaments. Number in 1872, 11,499.

The following sixty-eight castes (Nos. 43 to 110) are the lowest castes of Hindus, and are utterly despised:—(43) Suklí; cultivators and weavers; 29,353 in number. (44) Ranginí; weavers and dyers; 874 in number. (45) Lodhá; labourers; 3574 in number. (46) Hansí; weavers; 208 in number. (47) Jogí and Patuá; weavers; 4576 in number. (48) Juláhá or Jolá; weavers; 191 in number. (49) Kapáli; weavers; 130 in number. (50) Kotál; weavers and cultivators; 121 in number. (51) Chitrakar; dyers; 20 in number. (52) Darzí; a Hindu caste of tailors peculiar to Orissa and Midnapur; 437 in number. (53) Láherí; makers of lac ornaments; 206 in number. (54) Sikalgir, probably not a separate caste, but a branch of the Kámárs, who occupy themselves in polishing metals and arms; 198 in number. (55) Sunrí or Surf; wine sellers by caste, but many have recently abandoned their hereditary occupation, some betaking themselves to cultivation, and

others to trade; 7418 in number. (56) Sutradhar or Chhutár; carpenters; 10,585 in number. (57) Kalu; oil-pressers and sellers; 4901 in number. (58) Dhanuk; labourers, and employed in service; 26 in number. (59) Dháwá; employed in service; 82 in number. (60) Dhobá; washermen; 34,896 in number. (61) Káhár; palanquin-bearers and domestic servants; 1193 in number. (62) Kunjrá; not a caste, but a class who employ themselves as vegetable sellers; 38 in number. (63) Mátiá; sellers of fish and vegetables; 1059 in number. (64) Beldár; day-labourers; 102 in number. (65) Chunárf; makers of lime from burnt shells, eaten by the people with their betel-nut and pán leaves; 645 in number. (66) Korá; earth workers, employed as labourers upon embankments; 6181 in number. (67) Kástá; labourers and cultivators; 9270 in number. (68) Náfk; cultivators and labourers; 7860 in number. (69) Sámanta; agricultural and day-labourers; 775 in number. (70) Kurmf; a semi-aboriginal people employed in cultivation, and also in collecting and selling jungle products; 40,410 in number. (71) Behárá and Duliya. These are two separate castes; but are classified as one in the Census Report, which returns their number at 8175. Both castes are employed as palanquin-bearers and ordinary labourers; but the latter also add to their occupation that of fishermen. (72) Bágdf; cultivators, fishermen, and day-labourers; 76,285 in number. (73) Jáliá; fishermen and boatmen; 29,450 in number. (74) Keut; fishermen and boatmen; 2553 in number. (75) Mahádanda; fishermen and boatmen; 2064 in number. (76) Málá; fishermen and boatmen; 1895 in number. (77) Mánjhí; not a caste, but a class of boatmen who act as helmsmen. The Census gives their number at 37,909; but from this high total, it appears probable that a class of village head-men among the jungle and aboriginal people, and who have the title of Mánjhís, have been included with the Mánjhís who are boatmen. (78) Pod; fishermen; 4 in number. (79) Tior; fishermen and boatmen; 16,304 in number. (80) Báitf; makers of fine floor matting; 1982 in number. (81) Dom; cultivators, fishermen, and basket makers; 18,610 in number. (82) Pátnf; ferrymen and contractors, who farm the Government ferries. These men are held of lower rank than the other boating castes, as in the way of their trade they carry cows across the river, which is looked upon as a sin by orthodox Hindus; and also because they take money for ferrying passengers, which ought to be done as an act of benevolence. The number

of these ferrymen, in 1872, in Midnapur District, is returned in the Census Report at 195. (83) Khádál. During the period of the Government salt monopoly, these men were salt makers; but when the manufacture was abandoned by the State, these men were thrown out of employment, and most of them have taken to fishing and boating as their caste occupation. Although a separate caste, they are not classified as such in the Census Report. (84) Chandáls; cultivators and labourers; 24,713 in number. (85) Báheliá; a semi-aboriginal caste of day-labourers; 38 in number.

The following are all semi-aboriginal castes:— (86) Bhuiyá; cultivators and labourers; 11,336 in number. (87) Báurí; cultivators and labourers; 14,946 in number. (88) Bind; cultivators and labourers; 41 in number. (89) Chain; cultivators and labourers; 501 in number. (90) Abáshan; cultivators and labourers; 10,092 in number. (91) Turí; musicians and dancers; 4 in number. (92) Dosadh; cultivators and labourers; 58 in number. (93) Ghási; cultivators and labourers; 66 in number. (94) Karangá; cultivators and labourers; 5662 in number. (95) Bhairá; cultivators and labourers; 2411 in number. (96) Kodmál; cultivators and labourers; 20,031 in number. (97) Máhilí; cultivators and labourers; 3497 in number. (98) Musáhar; cultivators and labourers; 58 in number. (99) Pán; labourers; 9709 in number. (100) Pásí; toddy-makers from date juice; 643 in number. (101) Rájbansí and Koch; two branches of one semi-aboriginal caste, employed as fishermen and cultivators; 17 in number. (102) Rájjwár; labourers and cultivators; 1525 in number. (103) Chámár and Muchí. These are two different castes following the same occupation, that of shoemakers and leather dealers; but they do not intermarry or intermingle in any way. The Chámárs are locally said to be up-countrymen, while the Muchís belong to Lower Bengal. Number of both in 1872, 8544. (104) Mál; snake charmers; 5726 in number. (105) Káorá; swineherds; 4048 in number. (106) Hárí; swineherds and sweepers; 21,963 in number. (107) Mihtar; sweepers and scavengers; 3904 in number. (108) Bediyá; a wandering and gipsy-like tribe, who gain their living by bird-catching, juggling, fortune-telling, and petty thefts; 128 in number. For a further account of these people see my Statistical Accounts of the Districts of Jessor and Nadiyá. (109) Shikárí; hunters and bird catchers; 143 in number. (110) Buná; day-labourers; 6 in number.

The foregoing list of Hindu castes is exclusive of 25,346 persons of unknown or unspecified castes; 26,561 persons enumerated by nationality only, and 947 persons of Hindu origin not recognising caste (except the Vaishnavs), who are included. The list also includes a large number of those returned as aboriginal tribes, who have abandoned their ancient faiths, and embraced some sort of Hinduism. There are no predatory clans or castes in Midnapur District; and the Collector reports that no caste appears, so far as he can ascertain, to be declining either in point of rank or numbers.

THE RELIGIOUS DIVISION OF THE PEOPLE.—HINDUS:—The great bulk of the population of Midnapur District are Hindus; the remainder being Muhammadans, Christians, and hill people professing aboriginal faiths. The Hindus number 1,133,290 males and 1,152,278 females; total, 2,285,568, or 90 per cent. of the total population: proportion of Hindu males to total Hindu population, 49·6 per cent. The members of the Bráhma Samáj, or reformed theistic sect of Hindus, are included in the Census Report with the general Hindu population, and I have no means of ascertaining their separate number. The Collector reports, however, that very many of the educated natives in the towns, and one or two of the landholders, have joined the reformed faith. The Muhammadans of Midnapur District number 75,693 males; 81,354 females; total, 157,047, or 6·2 per cent. of the population: proportion of Muhammadan males to total Musalmán population, 48·2 per cent. No Buddhists or Jains are found in Midnapur District. The Christians number 319 males and 294 females; total, 613: proportion of males in total Christian population, 52 per cent. The rest of the population consist of people professing various aboriginal beliefs, and are classified in the Census Report under the name of 'Others.' They consist of 47,892 males and 49,843 females; total, 97,735, or 3·8 per cent. of the District population: proportion of males in the whole aboriginal population, 49 per cent.

THE MUHAMMADANS, as above stated, number 157,047 souls, or 6·2 per cent. of the total population of the District. The following paragraphs regarding the Musalmáns of Midnapur are from Vol. II. of Dr. Mouat's Report on the Jails of the Lower Provinces for 1868, page clxxvii.:—'The Muhammadans of Midnapur are divided into two religious sects, the Sunní, and Rafz' or Shiah. Those who acknowledge Muhammad as the last and true prophet, and at the same time hold with equal respect the first four Khalifás or suc-

cessors of Muhammad, namely, Abubakar, Umar, Usmán, and Alí, are called the Sunnis. The difference between these and the Rafzís or Shiahís is, that the latter, whilst they acknowledge Muhammad as the true prophet, believe Alí to be his deputy and only successor, and they do not hold the other three Khalifás in the same respect as the Sunnis do. The Sunni Musalmáns are divided into four classes, namely: (1) Hánífí, who follow the doctrines of one of the subsequent Khalifás named Hánífá; (2) Shafí, the followers of the doctrines of the Khalifá Shafí; (3) Hambalí, the believers in the doctrines of Hambal; and (4) Málíkí, the followers of Khalifá Málík. Each of these Khalifás inculcated special doctrines of his own, the principles of which fall under the original faith of the Sunni. Again, among the Sunnis, the followers of Abubakar are called Siddhikí; those of Usmán, Usmání; and those of Umar, Farughí. The Rafzís or Shiahís are subdivided into twelve sects, namely: (1) Ulviá; (2) Abdiá; (3) Shiah; (4) Ishakiá; (5) Zaidiá; (6) Ubbasiá; (7) Imámiá; (8) Motanasukhiá; (9) Nashiá; (10) Launiá; (11) Rajiá; and (12) Matarubbasíá.

‘There are no other religious distinctions among the Muham-madans. The terms Shaikh, Sayyid, Mughul, Pathán or Afghán, Málík, Mirzá, Beg, Chaudhrí, Hazári, Kází, Mullá, and Muftí, met with in this District, are mere appellations illustrative of family descent. For example, the descendants of the Khalifás Abubakar, Usmán, and Umar are called Shaikhs, the word Shaikh denoting nobility or high birth. The descendants of Alí are called Sayyids, being of a superior order—and they are so called, because Alí was the son-in-law of Muhammad. Next to the Sayyids come the Sharífs, who are descended by inter-marriage between the Sayyids and the Shaikhs. Tartars are called Mughuls for the sake of distinction. Afgháns are called Patháns in this country. They came from Afghánistán and the neighbouring countries, and the title Khán is always appended to their names. Málík, Chaudhrí, Hazári, are titles conferred by Nawábs and Emperors. Mirzá means the son of an Amír or nobleman, and the Shiahís are mostly called Mirzá and Beg. Hazári is also a title given by the Nawábs and Emperors to the captains of a thousand horse.’ The Collector reports that there are no distinct sects of Musalmáns, such as Wahábís or Farázís, in Midnapur District, and also that the religion of Islám does not appear to be making any further progress among the people.

THE CHRISTIAN population of Midnapur numbers 613 souls,

namely, 319 males, and 294 females. Deducting 217 as the number of European, Eurasian, and Armenian Christians, there remains a total native Christian population of 396 souls in Midnapur. Two small rural native Christian communities are settled in the District, one consisting of a few Bengali families about twenty miles west, and another consisting of Santáls, about twenty miles north-west of Midnapur town. They are all farmers, and are well-to-do. The Collector states that their social position is high for their class, and that it was so before their conversion to Christianity. The rest of the Native Christian population mostly live in the town of Midnapur, and both Christianity and the Bráhma Samáj effect their principal settlements among the town population. The local mission school, built in 1860, is under the charge of a native convert. The American Mission, under the Revs. O. R. Batchelor and J. S. Phillips, devotes itself to work in the town of Midnapur, and among the Santáls of the neighbouring villages. It has already established several village schools, a central training school in the station of Midnapur, a girls' school for famine orphans, and a mission printing press, at which the Bible was for the first time printed in Santálí. St. John's Church, in Midnapur town, was built in 1851, and consecrated by the Bishop of Calcutta in 1855. The average congregation since the church was opened in 1851 has been 20. The minister is under the Additional Clergy Society, and visits the out-stations of Contai (Kánthí) in the south of Midnapur, and Diamond Harbour in the 24 Parganá District, on the opposite bank of the Húglí.

DIVISION OF THE PEOPLE INTO TOWN AND COUNTRY.—The population of the District is almost entirely rural, and the Census Report returns only four towns as containing a population of five thousand souls or upwards, namely : Midnapur, population 31,491 ; Chandrakoná, population 21,311 ; Ghátál, population 15,492 ; and Tamluk, population 5849. Details of the population of these towns will be found on the next two pages. The town population has been increasing of late years, and the Collector thinks that a tendency towards city life is perceptible on the part of the people. The city population does not furnish an undue proportion of the ordinary work of administration. The District Census Compilation thus classifies the villages and towns :—There are 9173 villages containing less than two hundred inhabitants ; 2786 with from two to five hundred inhabitants ; 798 with from five hundred to a thousand ; 172 small

towns with from one to two thousand ; 20 with from two to three thousand ; 6 with from three to four thousand ; 2 with from four to five thousand ; 1 town with from five to six thousand ; 1 with from ten to fifteen thousand ; 1 with from fifteen to twenty thousand ; and 2 with from twenty to fifty thousand inhabitants. One of the above, however, returned as containing from ten to fifteen thousand inhabitants, is not really a town, but merely a *mausá* or collection of villages, and is therefore not included in the tabular statement of towns given on a subsequent page. The total number of towns or large villages containing upwards of two thousand inhabitants is 32. The following is a list of the chief towns, with their detailed population, etc., as ascertained by the Census of 1872 :—

MIDNAPUR, the chief town and administrative headquarters of the District, is situated on the north bank of the Kásái river in 22° 25' 33" north latitude, and 87° 21' 45" east longitude. The town was formally declared the headquarters station of the District on the 22d September 1783. Its population has rapidly increased of late years. In 1837, Mr. Gilmore, then Magistrate of the District, returned the population of the town at 12,839, the basis of the calculation being an enumeration of the houses, and allowing five inhabitants to each. In 1869, the Experimental Census disclosed the following results :—Number of houses, 6633 ; population, males 13,581, female 14,095 ; total 27,676 ; average number of souls per house, 4.17. The Regular Census of 1872 showed a still further increase of the population. The results then ascertained were as follow :—Hindus, males, 12,384 ; females, 11,447 ; total, 23,831. Muhammadans, males, 3487 ; females, 3745 ; total, 7232. Christians, males, 146 ; females, 127 ; total, 273. 'Others,' males, 93 ; females, 62 ; total, 155. Total of all denominations, males, 16,110 ; females, 15,381 ; total, 31,491. The town has been constituted a Municipality, and in 1869-70 the total municipal income amounted to £1236, 10s., and the expenditure to £1296, 15s. od. In 1871-72 the gross municipal income amounted to £1753, 18s. od., and the gross municipal expenditure to £1299, 6s. od. ; rate of municipal taxation, 1s. 1½d. per head of the population.

CHANDRAKONA, situated within the Fiscal Division of the same name, in 22° 44' 20" north latitude, and 87° 33' 20" east longitude, is the second largest town in the District. Formerly it belonged to Húglí District, and was only recently transferred thence to Midnapur. The town was the site of a weaving factory in the time of the East

India Company, and contained a large weaving population, who upon the withdrawal of the Company's commercial concerns, and the importation of English piece goods, were forced to give up their hereditary occupation and take to agriculture. The town is still a place of considerable trade, and is the headquarters of a police circle (*tháná*). I have not been able to obtain any previous estimates of its population, but the Census Report of 1872 gives the following results:—Hindus, males, 10,396; females, 10,537; total, 20,933. Muhammadans, males, 184; females, 194; total, 378. Christians, *nil*. Grand total, males, 10,580; females, 10,731; total, 21,311. The gross municipal income in 1871-72 amounted to £315, 6s. od., and the gross municipal expenditure to £210, 16s. od.; rate of municipal taxation, 3½d. per head of the population.

GHATAL, within Chandrakoná Fiscal Division, situated on the north bank of the Silái river, a short distance from the point where it empties itself into the Rúpnráyan, in 22° 40' 10" north latitude, and 87° 45' 50" east longitude. This town has also been recently transferred from the neighbouring District of Húglí, and is a trading place of considerable importance. I have been unable to ascertain what its population was at any period prior to 1872, but in that year the Census Report returned its inhabitants as follows:—Hindus, males, 7427; females, 7703; total, 15,130. Muhammadans, males, 201; females, 160; total, 361. Christian, 1. Grand total, males, 7629; females, 7863; total, 15,492. The town has been formed into a municipal corporation: in 1871-72 the gross municipal income was £463, 10s. od., and the gross municipal expenditure, £251, 0s. od.; rate of municipal taxation, 7d. per head of the population.

TAMLUK, the headquarters of the Subdivision of the same name, is situated in the south-eastern part of the District on the banks of the Rúpnráyan river, in 22° 17' 50" north latitude, and 87° 57' 30" east longitude. Tamluk was one of the places enumerated at the time of the Experimental Census of 1869, with the following results:—Number of houses, 1353; population, males, 2465; females, 2290; total 4755; average number of inmates per house, 3·51. In 1872 the Regular Census showed that the population had increased, the number being returned as under:—Hindus, males, 2567; females, 2477; total, 5044. Muhammadans, males, 432; females, 368; total, 800. Christians, males, 3; females, 1; total, 4. 'Others,' 1. Total of all denominations, males, 3003; females,

2846; grand total, 5849. Tamluk has been created a municipality; the municipal income in 1869-70 being £319, 11s. 10d., and the expenditure, £151, 19s. 0d. In 1871-72 the gross municipal income amounted to £426, 18s. 0d., and the gross expenditure to £338, 8s. 0d.; rate of municipal taxation, 1s. 5½d. per head of the population. The town contains also a police station (*tháná*), and is one of the principal seats of commerce in the District. In ancient times Tamluk was a famous city, and figures as a kingdom of great antiquity in the sacred writings of the Hindus. It first emerges upon history as a Buddhist maritime port, and is the place whence the Chinese pilgrim Fa Hian took shipping to Ceylon in the early part of the fifth century. Two hundred and fifty years later, another celebrated pilgrim from China, Hiouen Thsang, speaks of Tamluk as still an important Buddhist harbour, with ten Buddhist monasteries, a thousand monks, and a pillar by King Asoka, two hundred feet high. Even after the overthrow of Buddhism by Hinduism, Tamluk continued a great entrepot for maritime trade. Numerous wealthy merchants and shipowners resided here, and carried on an extensive over-sea trade. Indigo, mulberry, and silk, the costly products of Bengal and Orissa, form the traditional articles of export from ancient Tamluk; and although the sea has long since left it, the place long continued an important maritime town. In 635 A.D. the Chinese traveller Hiouen Thsang found the city washed by the ocean; the earliest Hindu tradition places the sea eight miles off, and it is now fully sixty miles distant. The process of land-making at the mouth of the Húglí has gone slowly but steadily on, and has left Tamluk an inland village on the banks of the Rúpnráyan river. The peasants, in digging wells or tanks, come upon sea shells at a depth of from ten to twenty feet; and an almost forgotten name of the town, Ratnákar or Ratnábatí, or the Mine of Gems, alone commemorates its former wealth. Under the rule of the ancient Peacock Dynasty of Tamluk, the royal palace and grounds are said to have covered eight miles, fortified by strong walls and deep ditches. No traces of the ancient palace are now discernible, except some ruins to the west of the palace of the present Kaibartta Rájá. The present palace is built on the side of the river, surrounded by ditches, and covers the more moderate area of about thirty acres of ground.

The principal object of interest at Tamluk is a temple sacred to the goddess Barga-bhimá or Kálí. Various conflicting traditions

relate how the temple was founded. The one most popular and acceptable to the people is as follows. In the days of King Garurdhwaj, one of the ancient Peacock Dynasty, a fisherman was employed to procure a dish of *saul* fish for the table of the king. One day, it so happened that he was unable to procure the fish, and the enraged king ordered him to be put to death. The poor fisherman managed to make his escape to the jungle, where the goddess Bhímá appeared to him, and told him to lay in a stock of the fish, and dry them, and that she would restore them to life as he wanted them, by sprinkling them with the water of a certain well, which had the virtue of restoring dead things to life. The fisherman found it as the goddess had said, and daily took the fresh fish to the king. The king, however, finding that the man continued to supply him with fish daily, in season and out of season, questioned the fisherman on the subject, and extracted from him the secret of the immortal well. Whereupon the goddess, who had taken up her abode in the house of the fisherman, incensed at his having betrayed the secret, fled from the house, and assuming the form of a stone image, seated herself over the mouth of the well, so as to hide it from view. The fisherman showed the king the spot, and the latter not being able to get at the well, built the temple over the image. Other legends relate that the well, besides containing the essence of immortality, had the faculty of turning everything dipped in it into gold.

The temple of the goddess is situated on the bank of the Rúpnáráyan, and the honour of its construction is ascribed to various persons. Some say that it was built by Biswakarmá, the engineer of the gods. It is generally, however, ascribed to the King of the Peacock Dynasty mentioned above, although the present royal family of Tamluk assert that the founder of their dynasty, the first Kaibartta king, was the builder of the temple. Another legend relates, how a famous merchant, named Dhanapati, the Lord of Wealth, when sailing down the Rúpnáráyan in his ships, anchored at Tamluk. While here he saw a man carrying a golden jug, who told him that a spring in the neighbouring jungle had turned his brass vessel into a golden one, and pointed out the well. The merchant accordingly bought up all the brass vessels in the market, transmuted them into the precious metal, sailed to Ceylon, where he sold them to the natives, and returning, built the great Tamluk temple. The skill and ingenuity displayed in the construction of the temple

still attract admiration. The shrine is surrounded by a curious threefold wall. A high foundation, consisting of large logs of wood placed upon the earth in rows, covering the whole area to be occupied by the temple, and afterwards covered over with bricks and stones to a height of thirty feet, was first constructed ; and upon this the wall is built. The three folds form one compact wall, the outer and inner being built of brick, the centre one being of stone. The wall rises to a height of sixty feet above the lofty foundations, its width at the top of the foundation being nine feet. The whole is covered with a dome-shaped roof. Stones of enormous size are used in its construction, and raise the spectator's wonder as to how they were lifted into their places at a time when the aid of machinery was unknown. On the top of the temple, although dedicated to the wife of Siva, is the sacred disc (*chakra*) of Vishnu, surmounted by the form of a peacock. The idol is formed from a single block of stone, with the hands and feet attached to it. The goddess is represented standing on the body of Siva, and has four hands. The upper of the two right hands holds a three-pointed spear, and the lower one a sword ; the upper left hand grasps another sword, while the lower holds the head of a demon. Many images of Vishnu surround the idol. The temple is divided into four apartments : Bara Deul, or Inner Sanctuary, containing the idols ; Jagamohan, or Hall of Audience ; Jajna-mandap, or Hall of Sacrifice ; and Nát-mandir, or Dancing Hall. A flight of stairs connects the outer gate of the temple with the public road below, and two pillars are situated on each side of the staircase. Outside the temple, but within its enclosure, is a Kelikadamba tree, supposed to have the virtue of redeeming women from barrenness. Numbers of women flock to this tree and pray for offspring, suspending pieces of brick to the tree by ropes made out of their hair. In this way the branches of the tree are said to be covered with these curious ropes.

The dread of the anger of the goddess is great. The Marhattás, when ravaging Lower Bengal, and plundering every place that they came across, when they reached Tamluk, left it untouched, and made many valuable offerings to the temple, out of fear of the wrath of the goddess. Even the river Rúpnráryan is said to still its waters as it flows by the temple, while a short distance above or below the shrine the waves are turbulent. The river has on several occasions encroached near the temple, and once reached to within

five yards of the walls ; but although even the priests deserted the edifice from fear that it would be washed away, the stream was only allowed to approach within a certain distance ; as often as it passed the line the waters were forced back by the Divine Will, and the temple escaped without injury.

There is also a Vishnuvite temple at Tamluk. An ancient legend relates that King Yudhishtir had resolved to perform a great *aswamedha jajna*, or Horse Sacrifice. This ceremony consisted in sending a horse, accompanied with a large army, round the Indian world, with a challenge to all other kings to seize him if they dared. Arjun, the warrior hero of the Mahábhárata, was in command of the force that accompanied the horse. When the army arrived at Tamluk, Támrahdwaj, a son of one of the early legendary monarchs of the Peacock Dynasty, seized the horse, defeated Arjun and his army, and taking him and his friend Krishna (the ninth incarnation of Vishnu) prisoners, carried them in triumph to the town. But his father, the king, reproved him for his presumption in daring to take Krishna, who was Vishnu himself, prisoner. In order to retain Krishna and Arjun always with him, the king built a great temple and placed their images within it. These images are called Jishnu and Náráyan,—Jishnu (literally, ‘The Victorious’) being another name of Arjun, and Náráyan that of Krishna. The original temple was destroyed by the river, but the sacred images were saved, and a fresh temple was built for their reception by a woman of the *goddú* caste about four or five hundred years ago. It is still standing. In shape and construction the temple resembles that of the goddess Barga-bhimá.

Tamluk, or Támralipta, as it is called in Sanskrit, although originally a centre of Buddhism, was converted into a place of great sanctity when the latter religion was ousted by Bráhmanism. Its very name bears witness to its ancient unorthodoxy, but even this has been distorted into a title of honour. Grammarians derive the word from Tamas + lipta,—literally, stained with darkness or sin. But a legend relates that it took its name from the fact that Vishnu, in the form of Kalki, having got very hot in destroying the demons, dropped perspiration at this fortunate spot, which accordingly became stained with the holy sweat (or dirt) of the god, and gave a sanctity and name to the place. A Sanskrit text speaks of it as a holy place in the following words :—‘ *Támralipta kastasyán, gurhan, tirthavaran baset ; Tatra snátwé chiradeva samyak yasyeti matpurin.*’

—‘I will tell you where your sins will be destroyed. There is a great place of pilgrimage on the south of India, an ablution in which saves a man from his sins.’ As an illustration of the great sanctity of the place, a Hindu legend relates that when the god Mahádeva destroyed Daksha, the son of Brahmá the Creator, the severed head of Daksha became fixed in his hand, on account of his having murdered a Bráhman. He asked the advice of the gods as to how he was to get rid of the head, and was told to pay a visit to all the places of pilgrimage in the world. He then visited the sacred places, but was unable to release himself; and when employed in performing austerities in the Himálayas as a penance for his sin, Vishnu appeared to him and told him to visit the place of pilgrimage at Tánralipta, which he had formerly omitted. Mahádeva immediately set out, and on arriving at the place, bathed in a small pool between the temples of Barga-bhímá and Jishnu-Náráyan, and immediately Daksha’s head fell from his hand. This place was hence called Kapál-mochan, or the Release of the Head, and became a great place of pilgrimage. In course of time, however, the river washed away the site. Pilgrims, however, still bathe themselves in the river, on the spot where the old Vishnuvite temple formerly stood, during the Bárunt festival.

The earliest kings of Tamluk belonged to the Peacock Dynasty, and were Kshattriyas by caste. The last of this line, Nisankhá Náráyan, died childless, and at his death the throne was usurped by a powerful aboriginal chief named Kálu Bhuiyá, and who was the founder of the line of Kaibartta or Fisher-kings of Tamluk. The Kaibarttas are generally considered to be descendants of the aboriginal Bhuiyás, who have embraced Hinduism. The present Rájá, a Kaibartta, is the twenty-fifth in the descent from the aboriginal Bhuiyá founder. I have referred to Tamluk at some length here, as it is the only place in Midnapur District concerning which we have any ancient history. A further account of the place under English rule will be found on a subsequent page, when I come to treat of the Fiscal Divisions of the District.

OTHER TOWNS.—The other towns, principal manufacturing or trading villages, and places of importance in Midnapur District, are as follow:—Nárájol, the principal village in the Fiscal Division of the same name, situated on the banks of a small stream called the Paláspái, in 22° 34’ 8” north latitude, and 87° 39’ 4” east longitude, and the village of Kayápát, are noted as the seats of a large

manufacture of cotton cloth. Dáspur, a police station and village in Chitwá Fiscal Division, situated in $22^{\circ} 36' 20''$ north latitude, and $87^{\circ} 45' 50''$ east longitude; Kasiárl, a village in Gágneswar Fiscal Division, in $22^{\circ} 7' 25''$ north latitude, and $87^{\circ} 16' 20''$ east longitude; and Anandpur, in $22^{\circ} 14' 40''$ north latitude, and $87^{\circ} 44' 20''$ east longitude. At these three villages, silk cultivation and manufacture are carried on to a considerable extent. Raghunáthpur, a police station and village in Patáspur Fiscal Division, situated in $21^{\circ} 41' 50''$ north latitude, and $87^{\circ} 35' 30''$ east longitude; and Kásijorá, the principal place in the Fiscal Division of the same name, situated in $22^{\circ} 17' 20''$ north latitude, and $87^{\circ} 22' 45''$ east longitude, contain colonies of mat makers, who make the fine qualities of mats which are largely exported to Calcutta as flooring mats for the houses of European residents. The village of Nawádá, situated in $22^{\circ} 35' 30''$ north latitude, and $87^{\circ} 30' 0''$ east longitude, is noted for the manufacture of a superior quality of cane sugar. The foregoing towns, or rather villages, are not separately mentioned in the Census Report. They contain an estimated population of between two thousand and three thousand souls, and may be properly classified as belonging to the rural, and not to the urban, population.

Before passing finally from the subject, it may be as well to exhibit at a glance the proportion of the town population to the general inhabitants of the District. The Census Report only returns four towns in Midnapur District as containing a total population exceeding five thousand souls. The total urban population thus disclosed amounts to 74,143, leaving a balance of 2,466,820 as forming the rural population. The dwellers in the towns, therefore, only amount to 2.9 per cent. of the total population of the District. The Muhammadans, who throughout Midnapur amount to only 6.2 of the general inhabitants, furnish 11.8 per cent. of the population in the four towns containing upwards of five thousand souls. The Hindus furnish 87.5 per cent. of the town population; the remaining .7 per cent. being furnished by Christians and 'others,' almost exclusively belonging to Midnapur town, as the table on next page shows.

SEA-SIDE WATERING PLACES.—Attention has repeatedly been called to the suitability of different localities on the Midnapur and Orissa Coast as watering places and sanatoria for Calcutta during the hot summer months. The two places in Midnapur District

[Sentence continued on page 70.]

RETURN OF POPULATION IN TOWNS CONTAINING MORE THAN 5000 INHABITANTS IN
MIDNAPUR DISTRICT.

NAMES OF TOWNS.	Hindus.	Muhamma- dans.	Christians.	Others.	Total.	Gross Municipal Income.	Gross Municipal Expenditure.	Rate of Taxation per Head.
Midnapur,	23,831	7,232	273	155	31,491	£ 1,753 18 0	£ 1,299 6 0	s. d. 1 14
Chandrakona,	20,933	378	...	...	21,311	315 6 0	210 16 0	0 34
Ghatal,	15,130	361	1	...	15,492	463 10 0	251 0 0	0 7
Tamluk,	5,044	800	4	1	5,849	426 18 0	338 8 0	1 54
Total,	64,938	8,771	278	156	74,143	2,959 12 0	2,099 10 0	Av. 0 94

brought forward as possessing peculiar advantages in this respect are Birkul and Chándpur, but nothing has yet been done towards providing proper accommodation for travellers. Birkul is situated on the sea coast in the south of the District, near the northern boundary of the Orissa District of Balasor, in $21^{\circ} 40' 40''$ north latitude, and $87^{\circ} 32' 0''$ east longitude. It is distant about twenty-six miles from the Subdivisional station of Contai (Kánth), with which it is connected by a road. The place has long been known as a pleasant retreat from the heat of Calcutta, and in the last century was a favourite summer resort of Warren Hastings. It has a delightful cool sea breeze; the only drawback being a scarcity of fresh water, which has to be brought from a considerable distance, and even then is not entirely free from brackishness. Chándpur is situated a few miles higher up the coast than Birkul, and is distant fourteen miles from Contai (Kánth), and thirty-two miles from Kedgerie (Khejiri), with a fair-weather road leading to it. The place lies above inundation level, and is said to possess more advantages as a sanatorium than Birkul. It is situated a short distance inland, and possesses a fine turf lawn, half a mile long by three hundred yards broad, on almost any part of which excellent fresh water is to be got by digging. The sea is visible from this raised lawn, below which, and within three hundred yards of it, is a beach of firm hard sand, stretching for miles on either side. Water-carriage is available almost to the very spot; and during the hot summer months there is a delightfully cool sea breeze, day and night.

VILLAGE INSTITUTIONS.—In a purely rural District like Midnapur, the indigenous village corporations still retain a considerable proportion of their ancient vitality. The Magistrate reports that there is not a single village in the District which has not its regularly constituted head-man. In some cases the same man is the head of two or more small villages situated close to each other; and in the case of large villages, there are often two or more head-men, one for each *mahallá* or ward. The institution of village heads in Midnapur District was in existence long previous to British rule, and it is a general belief that in the time of the Muhammadan administration of the country, these officers were appointed by the Government direct. In those days, from all accounts, these head-men had considerable power and influence, and were, to a very great extent, independent of the landholders (*zamíndárs*). They were allowed to dispose of petty cases themselves. Village disputes

were in the first instance brought before them, and only those which they failed to settle were sent up for decision to a higher authority. At present, they are to a great extent, and throughout almost the whole District, mere creatures of the *samíndárs*. There are five designations by which the village head-men are known—*baruás*, *mukhyas*, *mandals*, *ámíns*, and *pradháns*. In some instances son has succeeded father in the office of village head-man for two or more generations; but the office cannot be called hereditary, as each succeeding appointment is made by the *samíndár*. Not unfrequently the villagers nominate the candidate, but the confirmation of the appointment rests with the *samíndár*. In former times the office of head-man of a village was a post of honour very much sought after, as the holder was looked upon as the real chief of the village, and possessed considerable power. At the present time, however, this influence has much decreased, especially near the towns, where our Courts are easily accessible. The following brief account of the head-men in different parts of the District, their duties, responsibilities, and remuneration, and also of the other village officials, etc., is mainly compiled from a Report drawn up by Bábu Káli Prasanna Rái Chaudhrí, Deputy Collector of the District, and dated July 1873:—

(1) THE BARUA is the head-man of a village in the Hijili portion of the District. He acts as foreman on the part of the villagers in all important matters, and waits on and assists the police officers and revenue officers when employed on duty in or near his jurisdiction, and furnishes all information called for from him by those officers. For these duties he receives pecuniary gifts as a token of regard from the villagers on their marriages or other religious occasions, and the *samíndárs* also allow him slight remissions in his rent. The official position and remuneration of the *barud* has undergone considerable modifications of late years. At the time of the settlement of Hijili, these officers attracted the notice of Government, and received an allowance of one half per cent. of the village assessment (*jamábandí*), secured by certificates or *chhárs*, which were much prized by the holders. The duties for which the certificate granting the commission of half per cent. was given, were the following:—The *barud* was expected to preserve boundary marks and records of the fields, and to point them out when required; to attend any officer of Government; to share in some measure with the *chaukidár* or village watchman the task of keeping order; and

to aid in the internal administration of the village. This direct commission or salary from Government was subsequently done away with ; but the *baruás* still receive the amount, or its equivalent, from the landholders, ordinarily in the shape of a deduction from the rent payable by them to the *samindárs*. The appointment and dismissal of *baruás*, which was formerly made by the *samindárs*, with the general consent of the villagers, now rests with the Collector and Magistrate of the District, by whom registers of them are kept. The special duties of the *baruá*, in common with all other village head-men, required by Government in connection with the criminal administration of the country, are laid down in Section 90 of the Code of Criminal Procedure, Act X. of 1872. He is required to immediately communicate to the nearest Magistrate, or to the officer in charge of the nearest Police Station, any information which he may obtain respecting—(1) The residence of any notorious receiver or vendor of stolen property in the village ; (2) The arrival within the limits of such village of any person or persons known or reasonably suspected of being a *thag* or robber ; (3) The commission or intention to commit *sati* (the self-sacrifice of a widow on the funeral pyre of her husband), or other non-bailable offence, at or near such village ; and (4) The occurrence of any sudden or unnatural death.

(2) THE *MUKHYA* is the head-man of a village in the permanently settled parts of the District ; what the *baruá* does in Hijili is done by the *mukhya* in other parts of Midnapur. His appointment and dismissal, however, rest with the *samindár* ; and he gets no salary or remission of rent from the *samindár*, but is only regarded and respected by the villagers, and receives honorary presents on their marriages and other religious occasions.

(3) THE *MANDAL* is also the head-man of a village, chiefly in the jungly western tract. Being the tenant-in-chief, he sees to the cultivation of the village lands, and to the settlement of under tenants on them. In some parts of the District the *mandal* is the same as the *mukhya* described above.

(4) THE *AMIN* is an officer belonging to the establishment of the landholder (*samindár*). His chief duty is to measure lands of cultivators in cases of dispute among themselves about boundaries, etc., or for the purpose of assessing rent on them on the part of the *samindár*. There is also in every village or union of villages a principal husbandman who is called *dmin*, whose customary duty it

is, like that of the *mukhya*, to give receipts certifying service of court processes in his jurisdiction, and to wait on and help the police or other public officers in their public inquiries regarding offences, revenue matters, etc. The *átgharid* is an officer performing the same functions in the Hijili tract as the *ámin* does in the other portion.

(5) THE BHADRA is an officer selected by the general consent of the villagers to be the general referee. He, sitting with the *mukhya*, settles all disputes between the villagers. He is the object of special regard and respect in the village, and on marriages and other occasions of religious ceremony he receives some token of respect from the villagers, which is ordinarily in the shape of betel leaves and nuts.

(6) THE GURU OR SPIRITUAL GUIDE is ordinarily a Bráhmaṇ, though there are isolated cases where men of other castes exercise the functions, such as the Gosáin family in Parganá Gopballabhpur. The duty of a *guru* is to inform his disciple of the deity to whom he should devote himself, and generally to give him a moral and spiritual education.

(7) THE PUROHIT or Village Priest is usually a Bráhmaṇ. He worships the idols in the houses of his constituents, and utters the sacred formula (*mantras*) at marriages, funeral rites, and other religious and social ceremonies. He is paid by a money remuneration called *dakshind*. The rice and fruits offered to the deities and dead ancestors in funeral rites (*bhujji*), and the offerings made at the time of worshipping the idols (*naibidya*), are also given to him.

(8) THE NAIB is the deputy or representative of the landholder, placed in charge of the whole or a part of the *samindári* or estate, with a view to its general management. He resides generally in the midst of the estates under his management, and has a staff of ministerial officers (*muharrirs* and *peons*) to assist him. The designation *naib* has now been changed into 'superintendent' in some large *samindáris*, such as Sujámutá, Jalámutá, and Midnapur Fiscal Divisions. These officers generally receive high salaries, sometimes rising as high as £240 a year.

(9) THE GUMASHTA OR TAHSILDAR is an inferior officer under the *naib* or superintendent, and employed chiefly in the collection of rents, and in keeping the accounts of the estate, etc. The *chitíd* is a peon or messenger under a *gumashtá* or *tahsildár* who collects rents directly from the cultivators. *Sarbaráhhár* is literally a supplier. The term is commonly used to designate an officer employed by

zamindárs to collect rents from their husbandmen. He is virtually a *tahsildár* under another name.

(10) THE PATWARI is a village official appointed under Regulation XII. of 1817. His principal duties, as laid down in this regulation, were : (1) To keep such registers and accounts relating to the village or villages to which he is appointed, in such manner and form as has heretofore been the custom, or in such other mode as may be hereafter prescribed by the Board of Revenue ; together with such further registers and accounts as he may be directed to furnish. (2) To prepare and deliver, at the expiration of every six months, a complete copy of the aforesaid accounts, showing distinctly the produce of the *kharif* (rice) and *rabi* (winter crop) harvests. Patwáris in Midnapur District are only met with in Patáspur Fiscal Division. These officials are nominated by the *zamindárs*, and appointed and removed or dismissed by the Collector. They are paid by the *zamindárs* either in money or by rent-free lands called *patwári jagir*. Their duties had gradually fallen into desuetude ; but an attempt has lately been made to revive this class of village officials.

(11) THE CHAUKIDAR is the village watchman. He is appointed by the *zamindár*, and is paid in money, grain, or by service land. Besides performing his watch duties, apprehending thieves, etc., he is bound to give information of offences, and to assist the police.

(12) SARDAR is the head of the police *paiks*, and supervises them. He is paid by service lands which he holds rent free, and which are included in the *paikán* lands alluded to on a subsequent page under the head of tenures.

(13) SIMANDAR OR DIGWAR is another head of the police *paiks*, and is also remunerated by *paikán* service lands. The *digwár* is also a kind of road police functionary ; and the *simándár* most probably derived his name from the fact of its being a part of his duty to escort travellers through his village from one boundary (*simáná*) to the other.

(14) PAIK, as distinguished from the police *paiks*, described on a subsequent page under the head of Police, is the name of a special servant of the *zamindár* or other rich man. He keeps watch over the house of his employer at night, and does all other duties performed by a *darwán*, or door-keeper.

(15) NAGDI is another name of a menial servant of the *zamindár* in Midnapur, called a *piyáddá* in other Districts. He is engaged in collecting rents and debts due to his employer, and serves also as

a *páik* or orderly. Neither he nor the preceding, however, can properly be termed a village official.

(16) CHAUDHRI.—Two or three men in the town of Midnapur are called *chaudhris*. They supply carts, etc. to private individuals and for Government service, and are paid by a small fee from each cartman. There are no regular salaried or commissioned *chaudhris* in Midnapur District.

(17) THE KAYEL is a person whose business is to weigh or measure grain. He is frequently found at market places where large quantities of grain are sold; but not usually in the smaller villages. He is generally paid in kind by either the buyer or seller, or by both.

(18) THE KAZI of the present times merely performs the Muhammadan marriage ceremonies; his position, therefore, is only that of a Muhammadan priest. Formerly he was appointed by Government to administer both civil and criminal justice. His judicial functions ceased under the British rule.

(19) THE MAHAJAN is the village merchant and usurer. In his latter avocation he makes advances of grain or money to the cultivator, the rate of interest being generally 50 per cent. in the case of paddy, and $37\frac{1}{2}$ per cent. in that of money. Paddy is borrowed in the sowing or growing season, and the debt is discharged after harvest. Poor people suffered much oppression at the hands of *mahájans* in former times. When once in debt, such people could never extricate themselves from their clutches. A better state of things, however, is now gradually making its appearance.

(20) GANAK OR ACHARJYA.—These are astrologers and fortune-tellers. They pretend to a knowledge of the destiny of each person, and of the past, present, and future state of things in the world. Each, however, professes skill in some special mode of calculation. He is eagerly sought after by the villagers to tell them how to set about searching for things missing or lost, and how they may be recovered; to give accounts of the health of absent relatives, and to prescribe a propitious moment for the commencement of important business, and so forth. The smallest remuneration that he gets consists of two pounds of rice and a betel-nut, or a pice and a betel-nut. He finds the women more credulous than the men, and he is wise enough generally to arrive at conclusions, after making some pretended calculations, which will be agreeable to his inquirer. In old times *ganaks* obtained rent-free lands from the *samíndárs*,

called *ganakottar*. The number of *ganaks* or *achárjyas* in Midnapur District is returned, in the Census Report of 1872, at 196.

(21) THE NAPIT is the village barber, and is generally paid in kind. He receives presents on occasions of particular religious ceremonies, at marriages and social festivals. Letters of invitation on occasions of marriage and of *annaprásan* (*i.e.* the ceremony of giving boiled rice to an infant for the first time), *churdákan* (a ceremony at which the infant child's head is shaved throughout, and the lower parts of its ears are pierced, and golden rings, etc. inserted into them), and *upanayan* (investiture with the sacred or Brahmanical thread), are ordinarily distributed through the barber. The females of the barber caste are employed in cutting the nails of the native females, and decorating their feet with the paint called *dútá*; they are called *nápitánis*. The Census Report returns the number of adult males of this caste at 6175.

(22) THE DHOBA is the village washerman, and is paid either in kind or by a small annual salary in money. Besides his regular business of cleaning and washing clothes, the *dhobá* in Midnapur does not appear to have any other special duties in connection with native social matters. Number of adult males, 6306.

(23) THE PARAMANIK is the head-man among the lower castes of the people. He decides questions affecting their caste and other social matters, and receives in return respect and tokens of attention from them in the shape of presents in money, grain, or clothes. His influence over them is great.

(24) SUTRADHAR or Carpenter. It is not every village that has a carpenter. These and other artisans are principally found in the large villages. The village carpenters are not generally men of much skill, and their work is chiefly confined to making rough door-frames, cart wheels, bedstead frames, and other things of the kind. Some of them who also make idols, are called *kárigars* or artists. The number of adult males of the carpenter caste is returned at 1621 in Midnapur District.

(25) KAMAR, SWARNAKAR, KANSARI, KUMAR, AND PATIDAR.—These are the other village artisans. The *kámár* or blacksmith is more commonly found than the carpenter, and his services are in greater demand. The chief business of the blacksmith is to prepare the ploughshare, rake, spade, and other implements of agriculture. He is also the slayer of animals offered in sacrifice to the gods. The Census Report returns the number of adult males of this caste

at 3235. The *swarnakār* is the goldsmith and jeweller; number of adult males, 2883. The *kānsārī* is the brazier and coppersmith; number of adult males, 2927. The *kumār* is the potter; and there being greater demand for their work, are more numerous than the other artisan castes, the number of adult males being returned at 4956. The *patīdār* is the painter, but is not met with in every village. He paints idols and mythological pictures; number of adult males, 1022. The village artisans are almost always paid in money. They do not receive a fixed salary, but are paid for their work, either by the piece or the day, by those who require their services. The painter, however, is sometimes paid partly in kind and partly in money.

(26) THE MALI OR MALAKAR is the individual whose chief business it is to supply the villagers with flowers. On the occasion of a marriage he supplies coronets made of *solá* or pith for the use of the bridegroom and bride, and imitation flowers mounted with glistening talc for the lamp-light decorations. He is generally paid in money.

(27) BAJAWALAS OR BAJANDARS are people who play musical instruments, including the drum, etc., on ceremonial occasions, such as the first eating of rice, investiture with the sacred thread, ear-boring, marriage, worship, etc. They are paid in money, and are fed during the time of their employment by those who employ them.

(28) THE JHARANDAR sweeps places where large markets are held. He is usually paid for his labour by small portions of the vegetables or other articles exposed for sale, and which he collects from each vendor.

(29) KIRTANIAS are a special band of singers, whose profession is considered holy, and who are usually paid in money. It is a common practice in this District for the corpses of grown-up persons, or rather of persons of advanced age, when sent to the burning places, to be accompanied by *kirtaniás*, who go along with them, reciting holy names and singing holy songs all the way.

(30) THE GUNIN OR GUNI is a person who exorcises people believed to be possessed by an evil spirit, or under the influence of a witch; also houses which have the reputation of being haunted, or individuals who have been bitten by poisonous snakes. The villagers place superstitious confidence in a *gunin*, and credit him with the power of counteracting the evil effects of charms and incantations. He is generally remunerated in money.

(31) THE SAPURIA or snake-charmer catches venomous snakes, and earns money, rice, or cloth, by playing with them before the villagers. He also sells the poison, which is used in the preparation of certain native medicines called *bishbari*, etc. The snake-charmer pretends to be able to attract snakes to any place he likes by playing a flute, called *turmi* or *tubri*, and by uttering magical formulæ, *mantras*. He surprises the spectators by his skill in concealing the snake he brings with him somewhere under his clothes, or in a cloth bag, and by then throwing it into the house undetected, and then catching it again as a new snake found on the premises.

THE MATERIAL CONDITION OF THE PEOPLE of Midnapur is substantially the same as that of the mass of the population of Lower Bengal. The great body of the people, if they only have their bodily wants tolerably well supplied, consider themselves well off, and care for little else. Their standard of comfort is not high. A mud hut, a few earthen pots, a cloth to cover themselves with, a meal of rice, with occasional vegetables and fish, and above all a hookah, are sufficient to content the peasant castes. In the towns, the people here, as elsewhere, seem to have a keener appreciation of the advantages of wealth, possibly in proportion to their means of amassing it; and the town's-folk dress better, and are generally more comfortable, than the country people.

The ordinary dress of a well-to-do man of the shopkeeping class, consists of a cloth wound round the loins and passing between the legs from front to back, where it is tucked in at the waist (*dhuti*), and a cotton sheet or shawl (*chadar*) worn as a scarf over the shoulders. An ordinary husbandman usually wears a waist-cloth (*dhuti*) and a small scarf over the shoulders (*gamchâ*), but of coarser stuff than that worn by the shopkeeper. In the towns, the shopkeeper generally lives in a brick-built house consisting of one or two rooms; his furniture consists of a few wooden boxes and leather-covered baskets, with several mats for sitting and sleeping on, and some earthenware, brass and bell-metal cups and plates for cooking and eating purposes. In a country village, however, his house is generally built of either mud or mat walls, and thatched with straw; the articles of furniture in a country shopkeeper's house are fewer and of less value than those in the towns. An average cultivator lives in a straw-thatched mud or mat hut; his furniture is of the most primitive sort, and consists simply

of a box and basket or two, a rough mat, a few earthen pots for cooking, and one or two metal cups and plates. The ordinary articles of food consumed by the family of a well-to-do shopkeeper, are rice, pulses, vegetables, and occasionally fish. The Collector estimates the monthly living expenses of an average-sized household of this sort at about £2, including clothing. The cultivators eat rice and pulses of a coarser kind, and fewer vegetables, fish, and sweetmeats. The estimated cost of living for a middle-sized family of this class is said to be about £1 a month, including clothing. This estimate, however, is based on the assumption that the cultivator has to purchase everything required for his consumption. The money cost, however, is much less, as he grows rice and vegetables for his own consumption, and catches most of the fish he uses, either himself or by his family.

AGRICULTURAL.—Six different descriptions of rice are grown in Midnapur District. *Aus*, or autumn rice, consists of the following sixteen chief varieties:—(1) *Anatrákhá*, (2) *pátkurí*, (3) *suárguncháphá*, (4) *durgá-bhog*, (5) *ásrám sál*, (6) *bereháti*, (7) *áskádálai*, (8) *tetkuá*, (9) *ketácháli*, (10) *ásámlá*, (11) *jhingá-sál*, (12) *cháli*, (13) *sultán-cháphá*, (14) *ásmutí*, (15) *ásgangáial*, (16) *pátsál*. This crop is sown broadcast on dry land in the months of April, May, and June (Baisákh, Jaishtha, and Ashár), and reaped in August and September (Bhádra and Aswin). *Haimantí*, or *áman*, is the winter rice crop, and consists of the following thirty-one varieties:—(1) *Kátá-dhán*, (2) *kelekátá-dhán*, (3) *bhomar kánu*, (4) *pátná*, (5) *láusálkátá*, (6) *hemtá*, (7) *donárgurí*, (8) *dhulíá*, (9) *bangí*, (10) *draupadisál*, (11) *rámsál*, (12) *benáphul*, (13) *nágari*, (14) *gháskándí*, (15) *rúpsál*, (16) *naná*, (17) *jhingá sál*, (18) *kaiá*, (19) *kálindí*, (20) *bákui*, (21) *kásiphul*, (22) *kálá kártik*, (23) *gaurí-kájal*, (24) *rábansál*, (25) *bibhishansál*, (26) *chauddakhopá*, (27) *ráj-kisor*, (28) *natkan*, (29) *rángí*, (30) *harina-khurí*, (31) *bhuri*. This crop is sown in the months of June, July, and August (Ashár, Bhádra, and Aswin), and reaped in November and December (Agraháyan and Paush). The seed is first sown in nurseries, and afterwards transplanted into fields prepared for it. Another variety of *haimantí* or *áman* rice is also grown in Midnapur, and is sown broadcast and not transplanted. It is sown in April and May (Baisákh and Jaishtha), and reaped in November and December (Agraháyan and Paush). Its twenty-seven principal varieties are as follow:—(1) *Krishna bhog*, (2) *haldigurí*, (3) *sankar bhog*, (4) *Rám chandra bhog*, (5) *dainá gurí*, (6) *sankar chiní*, (7)

káldjirá, (8) *mágur bichá*, (9) *bangí*, (10) *dhulá*, (11) *kumrádal*, (12) *geri komal*, (13) *kataklárá*, (14) *kanak chur*, (15) *gangá tulsí*, (16) *rámsál*, (17) *jhingá sál*, (18) *sundar sál*, (19) *chámardál*, (20) *gayá báli*, (21) *páriját*, (22) *nuná*, (23) *khepá-jhingá*, (24) *bákui*, (25) *sondár*, (26) *gandh-málatí*, and (27) *rándhant-págál*. *Nuán* is the name of another description of rice, consisting of the five following principal varieties:—(1) *kálikásíphul*, (2) *muktáhar*, (3) *sáljháti*, (4) *kásíphul*, and (5) *káluágántí*. This crop is sown upon high-lying dry land in the months of May and June (Jaishtha and Ashár), and harvested in October and November (Kártik and Agraháyan). The rice is first sown broadcast in a nursery, and afterwards transplanted in specially prepared fields. *Boro* rice is sown broadcast on low marshy land in October or November (Kártik), and cut in March and April (Phálgun and Chaitra). The other two varieties of rice grown in Midnapur are *kákri* and *jháñji*, both of which are sown on high-lying land in May and June (Jaishtha and Ashár), and cut in September and October (Aswin and Kártik). Besides rice, the only other cereals grown in the District are wheat and barley, both of which are sown on dry land in October (Kártik), and reaped in March and April (Phálgun and Chaitra).

GREEN CROPS.—The following are the principal green crops, such as pulses, oil-seeds, etc., cultivated in Midnapur District:—(1) *Matar* or peas (*pisum sativum*); *birí*, a kind of pea; *ramá*, a kind of pea; *chholá* (*cicer arietinum*), *mug* (*phaseolus mungo*); *tisi* or linseed (*linum usitatissimum*); *musuri* (*cicer lens*); *sarisha* or mustard (*sinapis dichotoma*); *arkar* (*cytisis cajan*); *khesári* (*lathyrus sativus*). These are all winter crops sown on dry lands from which the *dus* or autumn rice crop has just been taken, and are cut or gathered about February or March. Four varieties of *til* seed (*sesamum orientale*) are grown, namely, *krishna til* and *sánki til*, sown in jungle land in June and July (Ashár and Srában), and gathered in November and December (Agraháyan and Paush); *khaslá til*, sown in sugar-cane fields in March and April (Phálgun and Chaitra), and cut in June (Ashár); and *bhádu til*, sown on jungle land in May and June (Jaishtha and Ashár), and cut in August and September (Bhádra and Aswin). The fibre crops consist of flax (*pát*) and hemp (*son*), sown on high land in May and June (Jaishtha and Ashár), and cut in August and September (Bhádra and Aswin).

MISCELLANEOUS CROPS.—Sugar-cane (*iksáhu*), sown on rather high land in April and May (Chaitra and Baisákh), and cut in February

and March. Indigo (*nil*) is sown on all kinds of land, except paddy. There are two seasons for sowing, called respectively the spring and autumn sowings. The sowing takes place in September and October (Aswin and Kártik), and the plant is cut in July and August (Srában and Bhádra). *Pán*, or betel-leaf, sown on black soil in June (Ashár), and plucked in July and August (Srában and Bhádra) of the following year. Cotton (*kápás*), sown on high lands in May and June (Jaishtha and Ashár), and cut in September and October (Aswin and Kártik). Mulberry (*tut*), planted on homestead land in September and October (Aswin and Kártik), and the leaves gathered as food for silk-worms in May and June (Jaishtha and Ashár). *Joár*, *bajrá*, *káong*, all sown on homestead or high lands in May and June (Jaishtha and Ashár), and cut in August and September (Bhádra and Aswin).

RICE CULTIVATION.—No improvement has taken place of late years in the quality of rice grown in Midnapur District, but a considerable extension is visible in the area of rice cultivation within the last twenty years. A large portion of the District, which a few years ago was covered with jungle, has been cleared and put under rice. The Collector estimates that the area of rice-growing lands has increased about fifty per cent. during the last twenty years. The various names of rice in its different stages are as follow :—*Bij*, the seed; *ankur*, the germinated seed; *bij-dhán*, the young sprouts; *phul*, the plant when it flowers; *duah gáchh*, the plant when the grain has begun to form in the ear; *dhán*, paddy; *chául*, husked rice; *bhát*, boiled rice. The preparations made from rice are :—(1) *Muri*; paddy steeped in cold water for a day or two, then boiled, and a second time steeped in water; it is then dried in the sun, husked, and afterwards parched. It is sold at about three-halfpence a pound. (2) *Khai*; paddy parched and husked; sold at about three-halfpence a pound. (3) *Chirá*; paddy first steeped in water, then partially parched and husked, after which it is beaten flat in the rice-pounder; price about the same as *khai* or *muri*. (4) *Hurum*, or *chául bhájá*; parched rice; sold at the same price as the foregoing. (5) *Pithá*; cakes made of rice flour; these are made in the houses of the people for home consumption, and are never sold in the bázár. The liquid preparations of rice are : (1) *Pachwai*, or fermented rice beer, price about three-halfpence a quart; and (2) *mad*, common country spirit, distilled from rice; price about a shilling a quart.

AREA, OUT-TURN OF CROPS, ETC.—The present area of the District, after the transfer of Chandrakoná and Bardá Fiscal Divisions from the neighbouring District of Húglí to Midnapur, is returned at 5082 square miles. These transfers were made in July 1872, and my information does not show the proportion of cultivated to cultivable and waste land within them. Excluding these *pargands*, the Collector returns the area at 4836 square miles, or 3,095,040 acres. Of this area, 4302·13 square miles, or 2,753,360 acres, are returned as under cultivation ; about 156·25 square miles, or 100,000 acres, as uncultivated, but capable of being brought under tillage ; and 377·62 square miles, or 241,680 acres, as uncultivable and jungle land. The Collector approximately classifies the area under different crops as under :—Rice, 2,709,923 acres ; pulses, oil-seeds, fibres, sugarcane, and other crops, 43,437 acres : total, 2,753,360 acres, or 4302·12 square miles. The former Statistics of the Board of Revenue furnished to me for 1868-69 give a more detailed estimate ; but although there is a very great discrepancy in the area stated to be under rice cultivation as compared with that returned by the Collector, I reproduce it as exhibiting the approximate area occupied by other crops :—Rice, 1,002,000 acres ; other food grains, 530,500 acres ; oil-seeds, 39,000 acres ; sugar, 128,000 acres ; cotton, 8000 acres ; indigo, 40,000 acres ; fibres, 150,000 acres ; tobacco, 200 acres ; vegetables, 88,000 acres : total, 1,985,700 acres, or 3120·65 square miles. It must be remembered that both these estimates are exclusive of the recent transfer of Chandrakoná and Bardá Fiscal Divisions from Húglí to Midnapur, both of which are densely populated and closely cultivated. The Collector estimates a fair average out-turn from land paying a rental of Rs. 1/8 a *bighá*, or 9s. an acre, to be about twelve *maunds* of paddy a *bighá*, valued at Rs. 8 ; or twenty-six hundredweights an acre, valued at £2, 8s. od. In addition to this, a second crop of pulses or oil-seeds, valued at Rs. 2/8 a *bighá*, or 15s. an acre. Including the value of the straw, which may be set down at about Rs. 2 a *bighá*, or 12s. an acre, the total value of the produce of land paying the above rate of rent would be Rs. 12/8 a *bighá*, or £3, 15s. od. an acre. From very superior descriptions of rice land, paying a rent of Rs. 3 a *bighá*, or 18s. an acre, and not yielding any second crop, the Collector estimates a fair out-turn would be about thirty-two *maunds* of paddy per *bighá*, worth Rs. 21 ; or about 70 cwts. per acre, worth £6, 6s. od. Including the value of the straw, the total value of the produce of this descrip-

tion of land would be about Rs. 25 a *bighá*, or £7, 10s. od. an acre. This, however, is an unusually high estimate.

CONDITION OF THE PEASANTRY.—A cultivator's holding exceeding thirty-three acres of all descriptions of land would be considered a very large-sized farm; less than six or seven acres is looked upon as a small holding. A farm consisting of thirteen acres of all descriptions of land would be considered a very comfortable holding for a husbandman. A single pair of oxen is not able to cultivate more than five acres of land; and the Collector reports that a peasant holding a small farm of this size would not be so well off as an ordinary retail shopkeeper. As a rule, the cultivating class is said to be in debt. Advances of seed paddy are generally made to the cultivator by the landlord, to whom the crop is hypothecated in the first place for the rent, and secondly, for the repayment of the advance. The advance is repaid at harvest time in grain, with an addition of from thirty to fifty per cent. as interest. Nearly all the cultivators of Midnapur hold their fields with a Right of Occupancy, and the Collector estimates the proportion of ordinary tenants at will to be only about four per cent. of the general body of cultivators. Very few husbandmen, however, hold their land free of liability to enhancement of rent. The number cannot be given, but the Collector states that their proportion to the other classes of cultivators is insignificant. Generally speaking, all the cultivators are acknowledged as possessing rights of occupancy, with the exception of sub-tenants, or *korfáddárs*. There are a few cases in Midnapur of small proprietors, who own, occupy, and cultivate their hereditary lands, without either a superior landlord above, or a sub-tenant or *krishán* below them. The Collector states that the holders of rent-free lands may be classed under this category, but such holders are few and far between.

THE DOMESTIC ANIMALS of Midnapur District used for purposes of agriculture are buffaloes and oxen. Cows are also sometimes used by Muhammadans for ploughing, but not often. Goats, sheep, pigs, geese, ducks, and fowls are reared for food, or as articles of trade. The value of an average cow is said to be £1, 10s. od.; of a pair of oxen, £2, 16s. od.; of a pair of buffaloes, £6, 8s. od.; of a score of sheep, £6, 0s. od.; a score of kids, six months old, £1, 10s. od.; and a score of full-grown pigs, £9, 0s. od. The Board of Revenue estimates the domestic animals in the District

thus :—Buffaloes, cows, bullocks, 69,000 ; sheep and goats, 85,000 ; pigs, 10,000. I have no means of testing these figures.

THE AGRICULTURAL IMPLEMENTS are as follow :—*Nāngal*, or plough ; *mai*, a description of bamboo ladder, drawn over the field to level it and break the clods ; *sāl*, for raking up grass, weeds, etc., from ploughed land ; *dault*, or *nirān*, for weeding and clearing ; *pasuni*, another sort of weeder ; *kāste*, or sickle for reaping ; *dā*, a bill-hook for clearing jungle ; *kurālī*, or axe ; and *koddālī*, or spade. One of each of the foregoing implements, and a pair of oxen or buffaloes, are required for cultivating what is technically known as a 'plough' of land, and which is equivalent to five acres for a pair of oxen, and seven acres for a pair of buffaloes. The capital necessary to purchase the implements and cattle required to cultivate 'a plough' of land varies from £3, 8s. od. to £7, os. od., according as oxen or buffaloes are used for ploughing.

WAGES AND PRICES have considerably increased of late years. The following rates are officially returned to me ; but the wages are lower than the rates to which other estimates and inquiries point :—Coolies and agricultural day-labourers earned from 2½d. to 2⅞d. per diem in 1871 ; smiths and carpenters, 4½d. a day ; and bricklayers, from 3d. to 3¾d. a day. Formerly, about 1860, the rates were : for coolies and agricultural labourers, 1½d. to 1⅞d. per diem ; smiths and carpenters, 3d. ; and bricklayers, 2½d. a day. In 1871, the ordinary bázár rate for best cleaned rice was 6s. 9d. a hundredweight ; common rice, such as that used by the labouring classes, 4s. 4d. a hundredweight ; best quality of unhusked rice, 3s. 4¼d. a hundredweight ; common quality of unhusked rice, 2s. 2d. a hundredweight ; shelled barley, 8s. 2d. a hundredweight ; unshelled barley, 5s. 4d. a hundredweight ; wheat, 9s. 4d. a hundredweight ; indigo, about £33 a hundredweight ; sugar-cane *gur*, or crude sugar, 10s. 11d. a hundredweight. In 1860, prices were about twenty-five per cent. cheaper. Rates during the famine of 1866 :—Rice, of any quality, £1, 1s. 10d. per hundredweight : unhusked rice, 10s. 11d. a hundredweight ; and wheat, £1, 1s. 10d. a hundredweight.

WEIGHTS AND MEASURES.—Two standards of weight are in use in Midnapur District,—one, the *ser* of 62 *tolá* weight, equivalent to 1 lb. 9 ozs. 8 drs. avoirdupois ; and the Government standard, or *páká ser*, of 80 *tolá* weight. The minor denominations of weight in both are the same. They are as follow :—4 *káchhá* = 1 *chhaták* ; 4 *chhaták* = 1 *podá* ; 5 *podá* = 1 *ser*. Beyond the *ser*, the multiples are :

2½ *ser* = 1 *árhái*; 2 *árhái*, or 5 *ser* = 1 *pasurí*; 8 *pasurí* = 1 *maund*. The local grain measures are as follow:—4 *káchhá* = 1 *chhaták*; 4 *chhaták* = 1 *koná*; 4 *koná* = 1 *pái*; 4 *pái* = 1 *man* or *maund*; 4 *maunds* = 1 *kurí*; 16 *kurí* = 1 *árá*; 20 *árá* = 1 *bisí*. For liquids the following is the standard of measurement:—4 *káchhá* = 1 *chhaták*; 4 *chhaták* = 1 *koná*; 4 *koná* = 1 *pái*; 20 *pái* = 1 *salí*. Distance is measured as follows:—24 *angulí*, or thumb-breadths = 1 *háth*, or cubit of 18 inches; 4 or 5 *háth* = 1 *káthá* (lineal); 20 *káthá* = 1 *rasi*; 88 *rasi* = 1 *kos*; 4 *kos* = 1 *yojan*, or about 8 miles English measurement. The local measures of time, besides the usual divisions of day, month, year, etc., which are the same in native as in English calculation, are as follow:—1 *anupal* = $\frac{1}{16}$ of a minute; 1 *pal* = $\frac{2}{3}$ of a minute; 1 *danda* = 24 minutes; 1 *prahar* = 3 hours; 1 *yug* = 12 years.

WASTE LANDS.—A considerable extent of waste land has been brought under cultivation of late years. Mr. H. V. Bayley, in his 'Memorandum on Midnapur,' 1851, mentions that at the time of the revision of the settlement of those estates held under temporary settlements, Government remitted the assessment on cultivable waste lands situated within their estates, with a view to encourage their extended cultivation. It was afterwards found that the concessions did not have the effect of inducing the landholders to grant leases on lighter terms to their cultivators, and it was therefore proposed to assess the lands at first very lightly, and to gradually increase the rent by progressive rates as the land was brought under cultivation. At the present day, nearly all the waste lands are situated in *Parganá Bagrí*, the largest Fiscal Division in the District, with an area of 444 square miles; and here the terms of tenure are favourable to the cultivator. Waste land tenures of the description known as *utbandí* or *jumid*, such as those met with in *Nadiyá* and *Chittagong*, do not exist in *Midnapur District*. Waste land tenures are here of a peculiar nature. These spare lands are not held by the proprietors as Home Farms (*khas khámár*), nor are they regularly leased to the cultivators annually. The proprietors or holders generally let the land out, on a sort of tenure known as *bhág-jot*, or shares. Under a tenure of this sort, the tenant pays no rent, but cultivates the land with his own ploughs, and provides all the expenses of cultivation. At harvest time he generally retains half the produce to reimburse him for his trouble, and hands the other half over to the landlord, or superior tenant, as the case may be, in lieu of rent.

LAND TENURES.—The following description of the different varieties of land tenures in Midnapur District, is slightly condensed from a report on the subject drawn up by Bábu Kálí Prasanna Rái Chaudhrí, Deputy Collector, dated 3d July 1873. These tenures are divided into three classes:—(1) Ordinary rent-paying tenures; (2) Rent-free tenures; and (3) Rent-free service tenures. The first class consists of twenty-five different tenures as follow:—

(1) ZAMINDARIS ordinarily consist of *pargands*, *tappás*, or other divisions of land, forming large estates, which pay revenue direct to Government, and constitute the property of the superior landholders or *samindárs*. The tenure existed during the Muhammadan rule, although in a different condition from the present. At that time, the *samindárs* are believed to have had no absolute proprietary right to the soil. They were considered rather as contractors, collectors, or farmers of the revenue, and were remunerated for their trouble, responsibility, and service, or received the hereditary dues to which prescription entitled them, in the shape of percentages on the collections, or by grants of land, called *nánkár*, held exempt from revenue for their subsistence, or sometimes by both. It was under the British rule in the year 1793 that the question of their right to the lands was set at rest by the terms of the Perpetual Settlement, which declared them to be the actual proprietors enjoying their estates in absolute ownership as long as they paid the Government revenue assessed on them, with the power reserved to Government of enacting such regulations as might be thought necessary for the protection of dependent *tálukdárs* and the cultivators of the soil. The number of *samindárs* that were brought upon the Collectorate Records, as settled at the time of the Permanent Settlement, was twenty-nine, several of them holding very large estates, comprising a number of entire *pargands*. The Census Report of 1872 returned a total number (male and female) of 1369 *samindárs*.

(2) INDEPENDENT AND DEPENDENT TALUKS.—Tenures usually smaller than *samindáris*, though sometimes including several villages, and not unfrequently confounded with *samindáris*, and hereditary and transferable as long as the revenue is paid, are called *táluks*. They existed during the Muhammadan rule, and were sometimes granted by the Mughul Government at favourable assessments as a mark of favour, or on condition of clearing and cultivating waste land. *Táluks* are of two kinds, as contemplated by the Regulations of the Permanent Settlement, viz. *husúrí* or

independent; and *maskúrí* or *shikmí*, or dependent. Independent *táluks* are those which pay their revenue to Government direct, being separated from *samindáris*, and entitled so to pay their revenue under the provisions of Regulation VIII. of 1793; and dependent *táluks* are those of which the revenue is paid through the intervention of a *samindár* or other proprietor. Independent *táluks* are classed with, and looked upon, as petty *samindáris*. They are not entered in the Collectorate Registers with any distinction from the regular *samindáris*, or with anything to show that they are of the character described in Section 5, Regulation VIII. of 1793. For practical purposes, however, the estates paying revenue to Government direct may be classified as follow:—

1st. Regular *samindáris* as settled at the time of the Perpetual Settlement in entire *pargands* or *tappás*.

2d. *Táluks* or estates other than the above, settled at the time of the Permanent Settlement or under the Permanent Settlement rules.

3d. Other estates added subsequently under the Resumption Laws.

The number of independent *táluks* in this District, according to the above classification, is 2147; dependent or *maskúrí* or *shikmí táluks* of old times are scarcely to be found in this District. One such *táluk* only can be traced in the records; it is *táluk Jámirápál*, included in the *Nayágáon samindáris*. There are, however, numerous petty *shikmí* tenures or *táluks* not exceeding 100 *bighás*, each assessed under the operation of the Resumption Laws as dependent on the parent estates temporarily settled. The number of these is not ascertainable; they are to be found chiefly in the Hijili portion of the District. Under the general head of *táluks*, the literal meaning of which is dependence, may be classed the tenures called *nánkár*, *patní*, *istimrári*, etc.; but as they are commonly known by these distinct names, they are separately mentioned in this list.

(3) NANKAR TALUKS are tracts of land originally exempted from assessment during the Mughul Administration, being intended for the support of the *samindárs* and their families. There are two large tenures of this sort in the District—one in *Parganá Midnapur* called *nánkár Ballabhpur*, and another in *Parganá Majnámútá*. Both of these have now been brought under assessment, and are settled in perpetuity under Regulation VIII. of 1793, paying their revenue direct to Government. There is also a third estate in *Patáspur Fiscal*

Division, called *nánkár* Patáspur. This is not permanently settled, but settled temporarily from time to time with the parent estate.

(4) **KAMDURA TENURES** are lands granted by *samindárs* previous to the Permanent Settlement, avowedly at lower than the prevailing rates, either as marks of favour, or for jungle clearing. In the settlements made of the parent estates under the Permanent Settlement rules these rates were allowed to stand good, and the tenures were assessed accordingly, and settled dependently on the parent estates. Such tenures are hereditary and transferable.

(5) **PANCHAKI TENURES.**—In olden times, before the Permanent Settlement, several patches of land were granted to persons by *samindárs* as marks of favour, or for the purpose of cultivation, the rent being assessed at low rates. These tenures were then, as now, called *panchaki*, the name being evidently intended to represent the rate of assessment. These tenures are chiefly to be met with in Bagrí Fiscal Division, and have been permanently settled dependently on their parent estates at the low rates of assessment originally made. It is supposed by some that the name *panchaki* is from the fact of the lands being granted at one-fifth of the usual rate of rent. The Midnapur Records, however, neither prove nor disprove this, inasmuch as they do not show the total produce or the original assets of the lands. The number of these tenures existing in the District is not ascertainable.

(6) **PESHKASHI** is properly the denomination of a quit-rent; hence an estate held at a quit-rent; and there are some under-tenures in this District, which go by the name *peshkáshtí*, evidently in consequence of the small quit-rents assessed on them. These tenures are precisely similar to the *kámdurá* tenures above mentioned (heading No. 4), and were recognised and settled in the same way as *kámdurá*. The total number of these tenures is not ascertainable; apparently, however, there are only a few of them existing in the District.

(7) **JALPAI** is the name of a tenure peculiar to Midnapur District. When the privilege of manufacturing salt was taken from the landholders and monopolized by Government, the latter took from the former large tracts of jungle and waste lands for manufacturing purposes, granting them in lieu remissions of rent, and also a payment as rent for the lands taken for manufacture, termed *khálarí*. The landholders likewise received compensation for the loss of profits derived from salt manufacture, and also an allowance of salt,

termed *khordáki*, or diet salt. The lands which chiefly supplied fuel for boiling the brine, were called *jálpái*, or fuel-lands. The total area of these lands in Midnapur which have become the property of Government under the provisions of Regulation I. of 1824, is about 76,835 acres. There are at present 187 estates of *jálpái* lands bearing distinct numbers on the District rent-roll, and 32 estates of *jálpái* lands have been incorporated and permanently settled with Government resumed rent-free estates.

(8) *ISTIMRARI* TALUKS are farms or leases granted by Government or a *samindár* in perpetuity at a stipulated rent, or in charity at a quit-rent. These tenures existed before the British Administration ; but no old *istimrárs* of the kind referred to in the Regulations of 1793 are in existence in this District, as far as can be ascertained from hearsay or from the Collectorate Records. Many *istimrárs*, however, seem to have been subsequently and recently granted by *samindárs*, as appears from the Collectorate Registers, which show 91 such tenures ; but there are evidently many others which have not been registered. The number of the latter is not ascertainable. These tenures are all hereditary and transferable, and not resumable by the grantors ; but they are liable to be cancelled by purchasers of parent estates at sales for arrears of revenue, if not specially registered under the provisions of Act XI. of 1859.

(9) *AIMAS* are properly tenures granted rent free, or subject to a small quit-rent, to learned or pious Musalmáns, or for religious or charitable uses in relation to Muhammadanism. These tenures existed long before the Company's accession to the *dtwání*, and were recognised by the British Government as hereditary and transferable. From Section 9 of Regulation VIII. of 1793 it appears that certain tenures called *málguzári díms* were granted for the purpose of bringing waste lands into cultivation. No *díms* granted for religious or charitable purposes, as above mentioned, either before or at the time of the Permanent Settlement, seem to exist in this District. There are indeed a few *díms* in Parganá Balrámpur which seem to have existed at the time of the said settlement ; but they were granted for the purpose of jungle cultivation. There are, however, a good many *díms* since granted by the *samindárs* for the purpose of clearing the jungle and for the improvement of the lands free of rent, or subject to small rents for the first few years, and assessable subsequently at progressive or fixed rent according to the *parganá* rates.

The total number of these tenures cannot be ascertained with any degree of accuracy. The registers under Act XI. of 1859 (Section 39) show only 12 such tenures. They are most prevalent in the jungle portions of the District, in Parganá Bagrí, Bráhmabhúm, Sildah, Bahádurpur, etc. These tenures are generally heritable and transferable by their terms, and are secure against cancellation, except by purchasers of parent estates at sales for arrears of revenue, if not duly registered under the provisions of Act XI. of 1859. A few of these *aimás* go by the name of *jangal-burí* tenures, although they are the same in character and peculiarities as the ordinary *aimá* tenures.

(10) *PATNIS* are a species of contract *táluks* which originated on the estates of the Rájá of Bardwán after 1793. They are granted by the *samíndárs* at rents fixed in perpetuity, to be held by the lessees, called *patnídárs*, and their heirs for ever. The lessees are required to furnish security at the discretion of the *samíndár* to the amount of half the annual rent. The main condition in the lease is, that in the event of an arrear occurring, the tenure may be sold by the *samíndár*; and if the sale proceeds do not cover the arrear, the other property of the defaulting *patnídár* is liable for it. These tenures are transferable and answerable for the personal debts of the *patnídárs*, and subject to the process of the courts of judicature in the same manner as other real property, without, however, in any way prejudicing the rights of the *samíndárs*. All transfers of *patní táluks* are required to be registered in the *samíndári* court. *Patnídárs* may under-let, but such leases are not binding on the *samíndárs* in the event of the tenure being sold for arrears. *Patní* tenures are liable to cancellation only by purchasers at sales for arrears of revenue of the parent estates or *samíndáris*, and if not registered under the provisions of Act XI. of 1859. Fifty-five *patnis* have been registered in the Collectorate under the above Act, but apparently there are many more such tenures in this District; the exact number, however, is not ascertainable. The tenures are most prevalent in the Fiscal Divisions of Khárijá Mandalghát, Chitwá, Bagrí, and Bráhmabhúm, and are gradually getting currency in other *parganá*s.

(11) *DARPATNIS*, and (12) *SEPATNIS*.—An under-tenure created by a *patnídár*, or a *patní* of the second degree, is called a *darpatní*; and an under-tenure created by a *darpatnídár*, or a *patní* of the third grade, is called a *sepatní*. Both of these tenures possess all the rights and immunities attached to *patnis*, as far as concerns their

grantees. *Darpatnis* exist to some extent; but their number, as well as that of *sepatnis*, of which there are said to be very few in this District, is not ascertainable. *Cháhrpatnis*, or *patnis* of the fourth degree, do not seem to exist in Midnapur.

(13) *IJARA*, derived from an Arabic word signifying 'price' or 'hire,' is the common term for contract tenancies of middle-men between the proprietors of lands and the actual cultivators. In an *ijárá* the lands are leased at specific rates of rent, and ordinarily for limited periods. This tenure seems to be the product of old unwritten custom existing from long before the commencement of the English rule. Ordinarily the *ijáráddárs* holding short leases sublet their farms, but in cases of long leases the engagements entered into contain provisions authorizing or forbidding subletting. This District teems with *ijáráddári* tenures; but only two long leases for 20 years have been registered in the Collectorate under the provisions of Act XI. of 1859. They prevail equally in all parts of the District.

(14) *DAR-IJARAS* are under-tenures sublet by the *ijáráddár*; sub-leases of this kind are common throughout the District.

(15) *IJARA ZARPESHGI* signifies a temporary lease or *ijárá* granted on receipt of an advance (*peshgi*) from the lessee, the proprietor's right of re-entry at the expiration of the term being contingent on the repayment or liquidation of the advance. Leases of this description are often granted in Midnapur, chiefly by indebted landholders. The lessees in these cases were protected against summary ejection on the expiry of the term of the leases by the provisions of Act X. of 1859, under which the parties must proceed by regular civil suits.

(16) *KATKINA IJARA* is the denomination of a temporary lease or sub-lease granted by the proprietor or farmer or under-farmer at a rack rent. The lessees in these cases are ordinarily bound to pay the rents engaged for by them without raising objection on the score of non-collection or insufficient collection from the lands leased. Leases of this kind are to be met with everywhere throughout Midnapur District.

(17) *JOT MANDLI* is a tenure which seems to be the product of an unwritten custom. It is supposed to have originated from the practice which prevailed in the District in old times of leasing lands to the head-men of villages, called *mandals*, on liberal rates of rents, for the purpose of clearing jungle and cultivating waste lands, on

the understanding ordinarily that they should thus reclaim the lands themselves or through cultivators under them. The tenure is similar in character to *dimás*. The name *jot mandli* appears to have arisen from the lease being granted to *mandals*. Leases of this kind are granted by proprietors of estates in perpetuity at fixed rates, or for a term of years only. The former practice was more in vogue in old times than now-a-days. Tenures of the kind in question are chiefly to be met with in Parganá *Chirá Jhárgón*, *Kalyánpur*, etc., in the jungle tracts. Those *jot mandlis* which have been granted in perpetuity at rents fixed for ever, have always been looked upon as transferable tenures. Government, however, repudiates the rights of the proprietors to hold their land at unalterable rates of rent. The total number of these tenures in Midnapur District is not ascertainable.

(18) *NIJ JOT, KHAMAR, OR SIR LANDS*.—These are lands which the *samindár* or other proprietor retains in his own hands, and cultivates either by hired labour or by tenants at will, paying as rent either half the produce, ordinarily called *bhog jamá*, or a determinate share of the produce, called *sanjá jamá*, or paying rent in money. Such lands are retained by almost all the *samindárs* of this District, and date from early times. *Khámár*, although, generally speaking, another name for *nij jot* lands, ordinarily implies waste lands subject to inundations, etc., cultivated only at favourable seasons, and paying rent in kind, generally on the *bhog jamá* system when cultivated. *Khámár* lands seem only to exist in Parganá *Chitwá* and *Khárijá Mandalghát* in this District.

(19) *JOT ZAMIN* is the common name for the holding of an ordinary cultivator. It is qualified by other prefixes, according to the different terms, conditions, and nature of the holding, as shown below.

(20) *MAURUSI JOTS* are hereditary leases of lands granted to husbandmen for cultivation, and are ordinarily transferable. These tenures exist in almost every Fiscal Division of the District, but their total number does not appear to be very large.

(21) *MUKARRARI JOTS* are leases of land granted to husbandmen for cultivation at fixed rents, but not hereditary (or at least not originally so).

(22) *MAURUSI AND MUKARRARI JOTS* (conjointly) are hereditary leases of land granted to cultivators at rents fixed in perpetuity. Many of these tenures exist in Midnapur, though their exact number is not known.

The three kinds of *jots* above-mentioned enjoy the privileges mentioned in Sections 3, 5, and 6 of the Rent Law, according as they may come under one or other of these sections. Lands on which houses, etc. have been built, or tanks dug, or places of worship, etc. made, are protected against auction-purchasers by Sections 37 and 52 of Act XI. of 1859. Lands in eight such cases seem to have been registered under that Act in Midnapur.

(23) KHUDKASHT JOTS.—The holdings of resident cultivators, or in other words, lands tilled by cultivators residing in the village to which their lands belong, are called *khúdkásht jots*. Tenures of this name existed before the Permanent Settlement. The old tenures are called *khúdkásht kadami*, and the new, *khúdkásht jadid*, a Persian word meaning 'new.' A great distinction was made between *khúdkásht* and other husbandmen in the old laws; but the only cultivating statutory tenures now recognised are those mentioned in Act X. of 1859, or Act VIII. of 1869, B. C., viz. rights of occupancy at fixed or at fair rents. Such of the tenures of the kind as come under the category of those referred to in the exceptional clauses of Section 37, and in Section 52 of Act XI. of 1859, are protected against purchasers of parent estates at sales for arrears of revenue by the provisions of those sections. Section 66 of Act VIII. (B. C.) of 1869 also protects *khúdkásht* tenures against purchasers of under-tenures under the provisions of Sections 59 and 60 of that Act. The total number of *khúdkásht* tenures existing in the District is not ascertainable, although they are prevalent more or less in almost every part of it.

(24) PAIKASHT JOTS are lands cultivated by non-resident *rayats*. These tenures are ordinary holdings under Section 8 of Act X. of 1859, or Act VIII. of 1869, B. C., and are entitled to be held only at such rates as may be agreed between the parties. Midnapur District abounds in such tenures.

(25) KORFA JOTS are the small holdings of under-tenants of ordinary cultivators. The name is derived from the Bengali word *kurpur*, meaning 'dependent;' the holder of such a tenure is called *korfá prajá*, and he generally has the same rights as the man immediately above him. These tenures are numerous in Midnapur District, but their total number is not ascertainable.

The second class of tenures common in Midnapur are rent-free tenures, of which Bábu Kálí Prasanna Rái Chaudhri's report enumerates sixteen different varieties, as follow :—

(1) LAKHIRAJ is the common name in Midnapur, as in other Districts, of all the revenue-free or rent-free tenures. Many such tenures were created during the Muhammadan rule by grants to hold lands exempt from payment of revenue, in perpetuity or for life only. They were occasionally made by the Emperors of Delhi, and the Governors of Bengal, Behar, and Orissa, for the support of the families of persons who had performed public services, for religious or charitable purposes, and for maintaining troops, etc. ; more often by the *samindárs*, and even by officers of the Muhammadan Government appointed to the temporary superintendence of the revenue, under the pretext that the produce of the lands was to be appropriated to religious or charitable purposes, while in fact the alienations were made for the personal advantage of the grantees, or clandestinely of the grantors themselves. No effective measures to check these mal-practices seem to have been adopted until 1793. By Regulation XIX. of that year, only such of the *hukúmi* grants (*i.e.* grants made by *samindárs*, etc., as above stated) were declared to be valid as were made before the 12th August 1765, the date of the Company's accession to the *dáwání*, provided that the grantees obtained possession previous to the above date, and the lands were not subsequently rendered subject to the payment of revenue by competent authority. All grants made after the above date, but previous to 1790, were deemed valid only if confirmed by Government or any officer empowered to confirm them ; but all lands granted, of the extent not exceeding 10 *bighás* ($3\frac{1}{2}$ acres), for religious purposes, which were *boná fide* appropriated to those purposes, were exempted from assessment ; and by Regulation XXXVII. of 1793, all royal grants for holding lands exempt from the payment of revenue, made previous to the 12th August 1765, were declared valid if the grantees obtained possession of the lands so granted previous to that date, and the grants had not been subsequently resumed by competent authority. Other grants made subsequent to the 12th August 1765, were deemed valid only if confirmed by Government, or by any officer empowered to confirm them.

(2) BAHALI LAKHIRAJ.—All *lákkhiráj* lands which were exempted from payment of revenue under the provisions of the Regulations above-mentioned, or on the principles laid down in them, are called *baháli lákkhiráj* (*i.e.* confirmed *lákkhiráj*) in Midnapur. The number of such tenures existing in the District in 1871 is returned

to me at 4144; and their revenue, if assessed at half rates, is estimated at £10,626. The *lákhiráj* tenures created for religious and charitable purposes are called *debottar*, *brahmottar*, *wákf*, etc., as detailed below.

(3) DEBOTTAR LANDS are estates granted rent free, the proceeds being appropriated to the worship and support of Hindu idols and temples. The ordinary method of providing for the support of idols, priests, and worship is by endowments,—by the dedication of certain property to an idol or to a temple; and the property so dedicated is thenceforth called *debottar* property. As soon as the lands have been so dedicated, the rights of the donor lapse for ever; he cannot alienate them, and his heirs cannot inherit them. *Debottar* lands, ordinarily speaking, are inalienable and indivisible; but temporary leases of them extending to the life of the *sebáyét* or *mahant* (the manager and superintendent of the establishment for the worship) may be granted by them for the benefit of the idol, or for the repairs, etc. of the temples; and the heirs of the grantor for whose benefit the worship is conducted can, by consent, form separate religious establishments, and separately perform the services, each one taking a separate share of the rents. The number of *debottar* tenures existing in the District, as far as can be ascertained, is 1132. They seem to be most prevalent in the southern and eastern parts of the District. Nearly the whole of the *debottar* lands in this District seem to be appropriated to the support of family idols, the management of the property and of the establishment for worship being made by the donors or their families. There is only one Hindu endowment in the District, viz. the *Dharmśáldá*, or resting-house, in Mauzá Manikar, within Khándár Fiscal Division. There are also 21 estates in the District, the recorded proprietors of which in the register are idols or Hindu gods.

(4) BRAHMOTTAR LANDS are estates granted rent free to Bráhmans for their support, and that of their descendants, either as a reward for their sanctity or learning, or to enable them to devote themselves to religious duties or education. The object which induced the grantees to make gifts of these lands under this head in old times did not continue in force in later periods, when fraudulent grants were often made to Bráhmans from other considerations and with other motives. Lands not exceeding 10 *bighás* granted to Bráhmans were declared exempt from payment of revenue by Regulations XIX. of 1793 and XIV. of 1825, above

alluded to. *Brahmottar* lands are more numerous in the Hijili portion of the District than elsewhere, and the records show 1203 such tenures. They are transferable, and liable for the grantee's debts.

(5) VAISHNAVOTTAR are lands granted rent free for the support of Vaishnav devotees. The District records show 272 such tenures in Midnapur. They are transferable, and liable to be sold for the grantee's debts.

(6) MAHATTRAN LANDS are rent-free estates granted to persons of respectability belonging to the *súdra* class, such as *káyasths*, etc., or for religious purposes. The number of such tenures in Midnapur District is returned at 169, principally in Patáspur Fiscal Division. They are transferable, and liable for the grantee's debts.

(7) KHUSHBASH LANDS are those granted rent free to persons for dwelling-houses, etc. In Midnapur District, 189 claims to hold land of this denomination rent free have been admitted. These tenures are mostly met with in Majnámutá Fiscal Division, and, like those above-mentioned, are transferable, and liable for the debts of the holders.

(8) BHATOTTAR are lands granted rent free to *bháts* or bards. Ten cases of such lands have been exempted from assessment in Midnapur, situated within Kedár and Patáspur Fiscal Divisions.

(9) GANAKOTTAR are lands granted to *ganaks*, or fortune-tellers, astrologers, and genealogists. Only two cases of such lands have been exempted from assessment in Midnapur, situated in Kedár and Patáspur Fiscal Divisions.

(10) SANYASOTTAR are rent-free lands granted for the support of *sanyásis*, or religious ascetics. Thirteen cases of such lands being exempted from assessment are entered in the District Records, all of which are within Patáspur Fiscal Division.

(11) KHANABARI LANDS are those on which the dwellings and outhouses of *zamíndárs* are situated, or homestead sites and vegetable gardens of cultivators, and on which no revenue has been assessed. In 23 cases in Midnapur District claims to hold lands of this description rent free were admitted. They are transferable, and liable for the debts of the grantees.

(12) WAKF LANDS are rent-free estates appropriated for Muhamadan religious or charitable purposes. Like the *debottar* lands of the Hindus, *wakf* lands are not liable for the debts of the testator, whose proprietary rights cease after the completion of the endow-

ments, and are not alienable, though transferable temporarily for the preservation or benefit of the endowment or the mosque. It has been held that if the property is wholly *wákf*,—*i.e.* if all the profits be devoted exclusively to religious and charitable purposes,—the *mutawallí*, or superintendent of the endowment, having only a life interest, is incompetent to grant leases for a longer period than the term of his own life; but if the office be hereditary, and the *mutawallí* has a beneficial interest in the property, it has been held that the property must be considered heritable, burdened with a certain trust. The number of *wákf* properties existing in Midnapur District is not ascertainable, but they are said to be very few. The District records only show six cases of lands assigned for the support of mosques. The word *wákf* is an Arabic term having several meanings, one of which is a legacy or endowment for pious uses, or a dedication or foundation of a public charity.

(13) MADAD-MASH are lands granted rent free for the support of learned or pious Muhammadans. The number of these tenures in Midnapur is returned at 23. They are transferable, and liable for the debts of the grantee.

(14) PIROTTAR are lands granted rent free for the support of the tombs of *pírs*—*i.e.* saints and other holy men of the Muhammadan faith. The District records show 63 of such tenures, mostly situated in the Fiscal Divisions of Doro, Patáspur, and Keorámál.

(15) NAZRAT LANDS are presents made in lands for religious purposes. Very few tenures of this description exist in Midnapur.

(16) KHANKAR signifies lands granted for the temporary residence of Muhammadan religious mendicants. The District records show only one case in which lands of this description were exempted from payment of revenue. The lands being granted for a public purpose, are probably not transferable or liable for the private debts of the grantee.

The third class of tenures in Midnapur consists of estates or lands granted rent free in return for military or other service performed by the grantee. Bábu Kálí Prasanna Rái Chaudhri's report enumerates seven different descriptions of service tenures as under:—

(1) PAIKAN LANDS are the name of a tenure peculiar to Midnapur. They consist of lands given to *páiks*, or village watchmen, in the shape of military tenures, some at low quit-rents, called *peshkás* *jamá*, and some free of all rent except that represented by the

service rendered by them to the *zamindárs*. The lands thus granted generally consist of blocks from two to thirteen acres each, although in some cases in Midnapur Fiscal Division *páiks* are said to be in possession of from 66 to 133 acres each, of service land of this description. In olden times the landholders retained large bands of *páiks* for purposes of aggression or defence; and these men were also employed in carrying on the system of internal police administration which the *zamindárs* maintained within their several estates, the tenures above alluded to being given to them for their support. In February 1796, the area of *páikán* lands in Midnapur was returned at 33,350 acres. In 1866, the total area, as ascertained by a special inquiry conducted by Mr. D. J. McNeile, C.S., was 28,115 acres; but changes have since taken place, in consequence of the recent transfers from Húglí District. These lands are chiefly situated in the wilder tracts of the northern and western parts of the District rather than in the southern or eastern parts, and are most frequently met with in the Fiscal Divisions of Midnapur, Manohargarh, Bhanjbhúm, Bagrí, and Bráhmabhúm. Some of the *páikán* lands in the District were resumed by Government, but were subsequently abandoned in favour of the *zamindárs*. *Páikán* lands were held on condition of service, and do not carry with them the right of hereditary succession. Mr. D. J. McNeile, in his special Report on the village police of Midnapur, states that *páikán* lands situated in *parganá*s settled after the enactment of Regulation I. of 1793 are protected from resumption by Government; and that such lands in *parganá*s settled before 1793, or such lands situated in a *zamindári* but paying no quit-rents, or such lands of which the quit-rents have not been included in the assets of settlement, are resumable under Clause 4, Section 8, Regulation I. of 1793. The relative positions of the Government, the *zamindár*, and the *páiks*, are as follow:—The *zamindár* is responsible to Government for the efficient service of *páiks*. He is to appoint the *páiks*, giving preference to heirs of old incumbents if they are qualified for the duty, and to dismiss them for incompetence or misconduct, and make over their lands to others. The *páiks* on their part are responsible to *zamindárs*, but the *zamindár* is responsible to Government for keeping them up in an efficient state.

(2) PATWARI JAGIRS are lands assigned to *patwáris*, or village accountants, in lieu of wages; but such tenures are only met with in Patáspur Fiscal Division. There are about 48 *patwáris* in that

parganá, and the total area of the land held by them on this tenure is about 232 acres. The *patwáris* have no proprietary right in the land, which is only held on condition of service in lieu of salary.

(3) ARZI PIYADA JAGIRS.—This is a description of service tenure peculiar to Midnapur. The messengers and bailiffs attached to the Collector's office hold revenue-free lands in lieu of salary, and these lands are called by the name '*ársí piyáddí's jágr.*' The tenure was created by a Muhammadan ruler of the Province, who, in the year 1095 Aml, granted a *sanad* to one Shaikh Banjá, giving him the lands revenue-free in perpetuity, with a view to bring the soil under cultivation; and the grantee in return performed certain ceremonial services, attended with 11 *chobdárs* on the Governor at Midnapur, and performed other duties connected with his Court. A deed for the land was subsequently obtained from Mr. Young, the Superintendent of *Bázi Zamin Daftar*, in 1786, and the grantee continued to attend the Collector of the District with 11 *chobdárs* as before. Attempts were made to resume these lands; but the Board, in their letters dated 22d May 1798 and 6th April 1842, prohibited their resumption on the part of Government, and the lands in question have all along been held by the peons free of revenue in lieu of salary, as above stated. The original deed was for 166 acres, but the quantity of land mentioned in that granted by Mr. Young seems to be 125 acres, and the actual quantity in the possession of the *piyáddás*, as per latest measurement, is 138 acres, situated in Parganá Kharagpur and Midnapur.

(4) DAFTRI JAGIR.—This is a plot of land, consisting of seven acres, held as service by the under record-keeper (*daftri*) in the Midnapur Collector's Office. The tenure seems to have been first created during the Muhammadan rule, when the *daftri* employed in the Revenue Court (*tahsildári kachárf*) at Khándár had the lands in question assigned to him in lieu of salary, and the grantee was continued in possession of the lands by the English; but subsequently the tenure was transferred to the *daftri* of the Collector's Office. The original deed for the lands is not to be found, and no record exists to show why the *daftri* was here remunerated in land in lieu of money.

(5) BEHARA JAGIR : (6) NAPIT JAGIR : and (7) KUMAR JAGIR, are the other service tenures. Lands granted rent free by *samindárs*, etc., to páiki-bearers are called *behára jágrs*; those granted to barbers are called *nápit jágrs*; and those granted to *kumárs* (earthen-pot

makers) are called *kumār jāgirs*. These tenures are held on condition of service by the former two, and of supplying pots, generally to *thākurbārīs* (temples), by the latter. Such tenures, and others of the kind, exist more or less in almost all large *samindārīs*. The number and area of such tenures are not ascertainable.

A considerable portion of the land in Midnapur District has passed from the hands of the superior landlord, or *sadr samindār*, into those of intermediate holders.

SETTLEMENT AND RATES OF RENT.—Midnapur is an intermediate District between the Temporarily Settled Province of Orissa and the Permanently Settled Districts of Bengal Proper, and illustrates both systems. The permanently settled portion consists principally of the closely cultivated lands in the interior of the District, while the temporarily settled portion is chiefly confined to the salt tracks in the Hijili Division of the District lying along the sea-coast and the western bank of the estuary of the Húglī.

The following particulars regarding the Settlement of the Hijili portion and temporarily settled estates in Midnapur, are condensed from Mr. Bayley's ms. Report. The Settlements were made between 1833 and 1852, under Regulations VII. of 1822 and IX. of 1825, and consisted of the three following kinds: (1) Detailed Settlements of rent-paying lands, comprising 21 *parganás*; (2) Detailed Settlement of Government-purchased estates; and (3) of resumed estates. The following is a statement of the principles which guided the assessments made at the time of the Settlement, quoted from Mr. Bayley's Report:—“Returns of produce were not taken *per se* as the basis of rates, for that would not alone afford a correct guide to a proper equalization of the public burden; because no real selling prices could be obtained for each individual case. The forced sale of the needy husbandman, and the contrary of a well-to-do one, or of the flourishing *sud khániá* (literally, interest-devouring) *maháján* or grain merchant, do not admit of any fixed price of produce on any given date for any particular village. Further, this fact, although sufficient to cause the rejection of any such basis, excludes at the same time all considerations of facility of carriage, proximity of markets, or local demand and supply, all of which more or less arbitrarily affect calculations made on the basis of returns of produce only. The plan of averages was also rejected, as not “equalizing” even in letter, and certainly not in spirit and in truth, the “public burthen.” But the rates were fixed in each case on the basis of “former *fair*

payments and present *fair* capabilities," to arrive at which, the powers of the soil, and situation of the the land, in each case, and its past *fairly paid* assessment, were carefully investigated. Mr. Commissioner Mills remarked on this important point: "The principle is the best and safest in all cases, and particularly in this case, where the chance of over-assessment was so great." The rates assessed on resumed rent-free estates were generally maintained at one-fourth less than on revenue-paying estates. This was the general usage, arising probably from the *lakkhirdjddr* being weak in comparison with the revenue-paying *saminddr*, and frequently an absentee; and it being therefore an object with him to give his tenants better terms than his more powerful neighbour may find it necessary to do. The terms to the husbandman being easier, have tended to make *lakkhirdj* lands always better cultivated than others; and as a general rule, this has been the actual result in Midnapur District.'

All the holders of resumed rent-free tenures at the time of the Settlement were allowed a reduction of fifty per cent. for their proprietary right. With regard to the parties allowed to engage for the settlement of resumed rent-free estates, Mr. Bayley, in his ms. Report, states that the principle laid down by Mr. Commissioner Mills, quoted p. 56 of that gentleman's 'Confirmation Proceedings,' dated 28th October 1844, was the rule followed:—'It appears that there are twenty-five sharers on this estate (Chak Arjun) who possess specific portions of land which have been separately assessed; but they have not claimed a separate allotment of the *jamd* (assessment). In the event of their doing so, there is no objection to the Collector taking separate engagements from each, and making the necessary entries in the records. In the meanwhile, the estate must be treated as a joint one (*ijmddl*); and as the sharers are so numerous, the body of proprietors might be invited to bring forward their own nominees to engage for the Government revenue, an arrangement as advantageous to themselves as to Government. In the event of such proprietor's recusancy, the estate may be farmed to a stranger at the fixed assessment (*mufassal jamd*), less twenty per cent. for collection charges, for a period of ten years. Of the remaining thirty per cent., ten per cent. will be set aside as the proprietor's *mdlikand*, or proprietary allowance, and twenty per cent. carried to the credit of Government.'

The following particulars with regard to the settlement of the

three Government-purchased estates of Kedár, Kharagpur, and Balrámpur, are extracted from Mr. Mills' Confirmation Proceedings.

(1) 'KEDAR.—The condition of the cultivators is described as strikingly indigent, attributed to over-exaction on the part of the former landholders and farmers, added to several bad seasons since the *parganá* came into our hands. Great care appears to have been taken in revising and refixing the rates. This was done after due inquiry into the capabilities of the soil; and the cultivators willingly signed their agreements. The average assessments were as follow: (a) *Kálá*, or high land, used as homestead sites, and for the production of sugar-cane, peas, hemp, betel plant, mulberry, cotton, vegetable and oil-seeds; average assessment, 7s. 1d. an acre. (b) *Jal*, or low lands, on which rice is cultivated; average assessment, 5s. 8½d. per acre. (c) Confirmed *kámdurá*, or lands paying a quit-rent, 9s. 0¼d. an acre. The total average is 5s. 7¼d. an acre. These rates are light, and such as the lands can well pay, but they have been adjusted with care and discrimination. The former assessment pressed heavily upon the cultivators, and the relief given is not greater than the circumstances of the case justified. With regard to the rent-free tenures in the *parganá*, the Collector will institute Resumption Suits under Section 30 of Regulation II. of 1819, to try the right of Government to assess all lands not covered by deeds granting them the land rent free (*bázi zamín sanads*). The farmers' allowance will be twenty-five per cent. on the fully assessed (*mál*) lands, and fifteen per cent. on the resumed rent-free (*lákhiráj*) lands, assessed at a half rental. The same percentage was given to the Kharagpur farmers; and in estates of this description situated in a highly cultivated country, and settled in detail, with the sum which each man is to pay defined and fixed, I am of opinion that it is a fair, but not an over-liberal allowance. The farmers' petition for thirty-five per cent. proprietary allowance, and for remissions on account of calamities of season, is quite unreasonable.

(2) 'KHARAGPUR.—This *parganá* is described as very high, and wanting in the means of natural irrigation. The soil is of three classes: viz. *kálá*, or high land; *jal*, or moist land; and *charápál*, or sandy land. The *kálá* produces spring rice, grain, vegetables, hemp, and flax; with a little cotton, mulberry, sugar-cane, mustard, and linseed. The *jal* lands grow the various kinds of rice which require much moisture; and the *charápál* produces melons, native vegetables, mangoes, and potatoes. Since the estate has become

the property of Government, the collections have been made through *sarbaráhkárs* or managers, who have contracted for a certain amount of revenue, less a reduction of from fifteen to twenty per cent. for the expenses and profits. The rates taken by the Settlement Officer were assumed after a comparison of the rates of the neighbourhood, the present capabilities of the soil, and the rents heretofore actually paid. The average rates assessed were as follow: *Kálá* land, 2s. 10½d. an acre; *jal* land, 4s. 10½d. an acre; *charápdál* land, 4s. 3d. an acre; resumed *jágr* (military service) lands, 4s. 2d. an acre. The average for the whole is 4s. 10d. an acre. In this *parganá* there were 156 claims to hold tenures denominated *nij jot*, *áimá*, and *kámdurá*, at fixed rates of rent, comprising an area of 1779 acres. Of this, 492 acres, paying a fixed rent of £93, 6s. 2½d., have been released; and 1221 acres, paying a former assessment of £62, 2s. 10d., have been subjected to a full rental settlement, and assessed at £475, 10s. 3½d.

With regard to the parties to be allowed to engage for the lands, Mr. Bayley would admit the *ex-zamíndárs* to enter into engagements for the estates, to the exclusion of the old and new farmers. I negated this proposition as an act of gross injustice to the farmers. The *zamíndárs* cannot claim the privilege as a right, and I consider them incompetent to manage estates of such extent as this and *Kedár*. The Deputy Collector proposes to assign to the *Rání* on her resumed *nij jot*, *áimá*, and *kámdurá* tenures, and to the *sadr áimáddár* on his resumed *áimá* tenure, an allowance of thirty-five per cent. on the assessment, on the ground (1) that they have a kind of special proprietary right therein; (2) because they have been assessed at a rate quadruple their former quit-rent; and (3) because I sanctioned a somewhat similar precedent in *Balrámpur*. Mr. Bayley would yield the point in pity to the fallen fortunes of a still respectable landholder. The *áimáddárs* reclaimed the land, and have an hereditary right of occupancy; and although no case is made out for granting proprietary allowance (*málikáná*), yet I do not object to giving thirty-five per cent. in the cases in question, as the lands have been brought into cultivation through the *áimáddárs'* agency, and the assets of the lands have been so considerably increased thereby. The Deputy Collector does not consider twenty per cent. a sufficient allowance to the farmers, and proposes twenty-five per cent. He argues that they are *sadr* farmers, that they are directly responsible to Government for the revenue, and that the difficulty

in making collections for small and scattered areas is great. The Superintendent of the Settlement approves of this liberal rate of percentage, as the leases are to be for twenty years' duration, and as a motive to induce them to deal justly and liberally with their tenants. For these reasons, and with regard to the great liability of the land to drought, I have adopted the suggestion. No clause can be introduced into the leases stipulating for remissions on account of bad seasons. Indeed, it is to be understood that the farmers will be expected, except in seasons of extensive and general calamity, absolutely demanding the interposition of the State, to bear the loss which may be sustained. The farmers have combined to demand an allowance of thirty-five per cent. to cover expenses and risks. The demand is altogether unreasonable.

(3) 'BALRAMPUR.—This estate is described as mostly forest. It was originally used as a *shikārgā*, or hunting ground, and it is stated that only when the proprietor became embarrassed was the clearing off of the jungle commenced; much jungle yet (1844) remains to be reclaimed. The rates of assessment are low, but I think they are fair and suited to the circumstances of this half-reclaimed estate, the average for *kālā* land being 9d., and for *jal* land 2s. an acre; the general all-round average being 1s. 1½d. an acre. With the exception of 39 acres assessed at the rate of 6d. an acre, the lands of this *parganā* are all *dimā* estates. Though I disapprove of the principle of prospectively assessing cultivable waste, particularly in an estate of this description, yet as it is stated that the *dimādārs* themselves petitioned for the arrangement, and the rates are extremely light, I will not interfere. The rent imposed on the portion situated in the farmed estates is of trifling amount, and it is not worth while to alter the papers for the purpose of remitting it. I fully agree with Mr. Bayley as to the impropriety of assessing waste land for the firewood and charcoal it yields. Let the peasants be encouraged to cultivate it; and on the expiration of the present settlement, Government will participate in the produce of the waste that may be made productive. Under this arrangement a considerable accession of revenue may fairly be expected from the lands in question.

'With regard to the ex-proprietors, I wish to show every consideration to the Ránís, consistent with a due regard to the interests of the State. They have been allowed to hold their *nij jot* and *dimā* lands, the former hitherto at almost pepper-corn rents; they have

been offered pensionary support ; they have been, and are now, permitted to hold their houses and homestead grounds, which are of considerable extent, free of charge ; and I will now give them the option of engaging for Balrámpur, on the following favourable terms :— They shall receive fifteen per cent. on the payments of the farmers, and thirteen per cent. on those of the *dimáddrs*, for the trouble and responsibility of collecting the rents ; and thirty-five per cent. on the measurement (*hasto búd*) assessment, they being required to furnish sufficient security for the due performance of their engagements. The allowance to be made to the farmers is fixed at twenty, and to the *dimáddrs* at twenty-two per cent. ; the latter being increased beyond that of the former in order to cover the expenses of agricultural embankments, which are essential to the reclamation of jungle lands. The Superintendent of the Settlement will see that sufficient security (*mál zámín*) is taken from the farmers for the complete protection of the Ránís against loss from default.'

The temporary Settlements were made for a period of thirty years, and most of them fell in during 1871-72, and a revised Settlement is now (1873) in progress. The following statement, showing the results of the temporary Settlements concluded between 1833 and January 1852, is reproduced from Mr. Bayley's MS. 'Memorandum on Midnapur.' Regular revenue-paying estates, settlement area, 172,936 acres ; former assessment (*sadr jamá*), £26,473, 11s. od. ; present (1852) settlement assessment, £21,472, 8s. 11d. Resumed rent-free estates, settled at half rates, settlement area, 40,959 acres ; former assessment, *nil* ; assessment in 1852, £5144, 5s. 6d. Government-purchased estates, settlement area, 46,474 acres ; former assessment, £4999, 17s. 7d. ; assessment in 1852, £6462, 9s. 7d.

SURVEY OF THE DISTRICT.—Midnapur District was surveyed in the years 1838-44. As a revenue survey it has been condemned, but geographically it has a certain value. The following paragraphs are condensed from Mr. Bayley's Report :—The Survey may be considered under two heads, viz. the Survey for the temporarily settled estates, and the Survey of the permanently settled *parganá*s as part of the General Revenue Survey. On the former point, Mr. Commissioner Mills writes—'The Survey and rough (*khasrá*) measurements were under the control of the Surveyor. The *khasrá* survey was generally found so inaccurate, that it became necessary to do much of the work over again, which caused much interruption to the Settlement operations, and greatly delayed their final com-

pletion.' The inaccuracies of the Surveyor's rough measurements may be conjectured from the following facts. The native surveyors (*ámíns*) were not paid for measuring waste lands, and therefore entered as many of them as possible as cultivated and cultivable; they also purposely made wrong entries when not bribed. Their returns were unchecked; and if they could not (as was to be expected from their many fictitious entries) make their totals agree within six per cent. of that of the professional Survey, they made a false total. Hence, the Settlement Officers had not only to revise the measurements, but to endeavour to reconcile papers of the most contradictory character.

When the Settlement Survey and the measurements of Hijili were finished, it was resolved to extend the operations to the remainder of the District, by making a village and *parganá* survey of every estate borne on the rent-roll; preceded by a demarcation of boundaries and an adjustment of boundary disputes. Villages in which the lands of different estates were interlaced were measured by *ámíns*, who were for some time controlled by the Surveyors, but the measurement was greatly mismanaged. The *zamíndárs* refused to sign the measurement statements (*chittás*), and the Surveyor was unable to reconcile the disagreements between the rough measurements and the professional Survey, as well as between the former and the Collector's Registers. It was therefore determined to make over the duty of testing these measurements to the Deputy Collectors, as well as to assign to them the conduct of the future measurement. The *khasrá* or rough measurements then proceeded satisfactorily, and the *zamíndárs* signed the papers in proof of their correctness. But on the Collector's proceeding to test the areas of his *khasrá* measurements, in communication with the Surveyor, and by comparison with the professional records, it was found impossible to reconcile the conflicting results of many villages, as well as to discover the parent or original village in that of others. It was therefore resolved to depute a Surveyor to revise the Survey and measurements of those villages in which the discrepancies existed, and also to find out the parent estates of the villages which the Surveyor could not identify, and which were not traceable in the Collector's Records.

The Deputy Surveyor-General attributed the discrepancies to the following causes:—Firstly, To laxity and neglect on the part of the Surveyor; Secondly, To the erroneous method of native mensuration;

Thirdly, To the inaccurate registry of local measurement rods in the Collector's Office ; Fourthly, To a fallacious mode of calculation used for converting the local into the European land measure ; and, finally, To a want of common care and caution in carrying out the professional and *khasrá* measurements.

The task of revision was delegated to Mr. Swiney, who was occupied for two years in correcting the boundaries of the old maps, errors of calculations, etc., in the Survey of 1020 villages. But where such discrepancies existed, the correction and alteration of the boundaries of the old maps deranged the boundaries of the adjoining villages to the number of about three thousand. It was accordingly proposed that these should be resurveyed, and the then Collector of the District, Mr. Torrens, suggested that the duty should be entrusted to a superior officer, as the revision involved the security of individual rights. Mr. Commissioner Ricketts recorded his opinion in a Minute, that it mattered little to anybody where the boundaries were placed. Ten villages might be thrown into one, or one village might be divided into ten, without injuring any one, or in any way affecting the value of the maps for revenue, judicial, or geographical purposes. With regard to the Collector's statement that the revision was a work involving the security of the rights of individuals, Mr. Ricketts said, that although it was possible in some parts of Midnapur that the village boundary ruled the right of property, still in the Quinquennial Register, each separate estate bearing a certain proportion of the revenue assessed thereon, was duly entered as composed of certain villages or portions of villages specified in such register. After much discussion, the Board of Revenue came to the conclusion that it would be better to have a resurvey of the whole District, and in January 1851, recommended it to the Government. No action, however, was taken upon the Board's letter, and the existing Survey is that which was made in 1838-44.

RATES OF RENT.—The rates of rent current in Midnapur vary in different parts of the District, according to position, quality of soil, etc. The following statement exhibits the ordinary rates, as returned for 1872, in different Fiscal Divisions :—(1) Parganá Midnapur, in the Headquarters Subdivision : *áus* rice land, rate of rent from 2s. 4½d. to 9s. 6d. an acre ; *áman* rice land, from 3s. to 12s. an acre ; pulse-growing land, from 2s. 4½d. to 9s. 7½d. an acre ; oil-seed land, from 4s. 9d. to 7s. 3d. an acre ; sugar-cane land, from

9s. 7½d. to 14s. 4½d. an acre ; mulberry land, 19s. 3d. to £1, 4s. an acre ; vegetable land, from 4s. 9d. to 9s. 7½d. an acre. (2) Parganá Sháhpur, in the Headquarters Subdivision : *áus* rice land, from 9s. 7½d. to 11s. 7½d. an acre ; *áman* rice, from 7s. 9d. to 11s. 7½d. an acre ; pulses, from 7s. 9d. to 11s. 7½d. an acre ; sugar-cane, from 11s. 7½d. to 15s. 6d. an acre. (3) Parganá Sildah, in the Headquarters Subdivision : *áus* rice, from 10½d. to 2s. 4½d. an acre ; *áman* rice, from 1s. 9d. to 4s. 9d. an acre ; pulses, 1s. 6d. to 1s. 9d. an acre ; oil-seeds, 1s. 9d. an acre ; sugar-cane, from 3s. 6d. to 4s. 9d. an acre. (4) Parganá Kharagpur, in the Headquarters Subdivision : *áus* rice, 2s. 1½d. to 3s. 6d. an acre ; *áman* rice, 5s. 4½d. to 9s. an acre. (5) Parganá Doro, in Tamruk Subdivision : *áman* rice land, 5s. 4½d. to 9s. an acre. Vegetables also grow on low rice lands and pay the same rate of rent. (6) Parganá Majnámutá, in Contai (Kánthi) Subdivision : *áman* rice land, from 4s. 1½d. to 8s. 1½d. an acre ; pulse land, from 3s. 7½d. to 12s. an acre. (7) Parganá Bagrí, in Garhbetá Subdivision :—*áus* rice, 3s. 7½d. to 6s. an acre ; *áman* rice, 6s. to 14s. 4½d. an acre ; pulses, 1s. 3d. to 3s. 7½d. an acre ; sugar-cane, 19s. 3d. to £1, 18s. 4d. per acre.

I have not been able to obtain any information as to rates of rent prevailing in olden times. The working of Act X. of 1859 (the Land Law of Bengal), however, has not resulted in anything like a general enhancement of rents in Midnapur. The enhancement provisions of that law were generally resorted to only in those villages in which rents were lower than the rates prevailing for the same class of land held under similar circumstances in neighbouring villages. The cases in which the Act was most frequently made use of occurred in estates which formerly belonged to Government, *khás mahals*. This was owing to the fact, that while Government had the management of them, the rates of rent were invariably lower than those prevailing in the adjacent estates. Thus the rate in the village of Mukrapur, in Kharagpur Fiscal Division, was 9s. 9d. per acre when it was the property of Government. In 1861, the estate was sold to a private individual by the Government, and the purchaser immediately sued the cultivators for enhancement of rent, and succeeded in obtaining a decree at the rate of 15s. an acre.

ABWABS, OR CUSTOMARY CESSES.—During native rule, and for a long time after the British accession to the administration, the

landholders were accustomed to exact from their tenants, in addition to the rent of their lands, a variety of other cesses and fees called *ábwábs*. Some of these are so closely connected with the land that they have come to be considered as a part of the rent, and are paid as such by the cultivators; while others are cesses levied by the landholders from specific classes or castes, and on occasions of domestic ceremonies. At the time of the Settlement a minute inquiry was made into these *ábwábs*, or customary cesses; and those which had from ancient times formed a part of the land rent were retained and included as part of the rent, while the others were nominally abolished, and the landholders prohibited to levy them. In some *parganá*s the cultivators complained that their rents were unduly swelled by the imposition of these *ábwábs*. In Gáomesh Fiscal Division, the Settlement Officer found that the following cesses were levied by the landholders on the cultivators:—

- (1) *Sikká báttá*, or exchange on *sikká* rupees; (2) *Madrájí báttá*, exchange on Arcot rupees; (3) *Bái sirúppá*, a fee levied on the investiture of the *zamíndár*; (4) *Khand chhár*, fee upon releasing an attachment upon the crops; (5) *Bheribandá*, fee for maintaining embankments; (6) *Máhamádrí*, a stated monthly fee or present; (7) *Pánchpái*, a tax of one in every five pice; (8) *Mágan*, a direct tax, varying from one and a half farthings to threepence per family; (9) *Kifáyat Kamojan*, or profit on short weights; (10) *Khána tikká*, a house-tax of one *áná*, or three-halfpence; (11) *Gandí*, a fee for the maintenance of the village idol. Another cess, called *jaríb mukáfi*—literally, exemption from measurement—prevailed over all Hijili prior to the time of the Settlement. This was a tax levied by the landholders, and assented to by the tenants, in consideration of having their lands exempted from measurement, by which means they were enabled to hold and cultivate a larger extent of land than that covered by their leases. In 1852 this tax was abolished in all the Hijili *parganá*s except Gáomesh, the cultivators of which held out, and claimed the right of holding their lands free of liability to remeasurement, upon the payment of the customary *jaríb mukáfi* fee. Ultimately their remonstrances were admitted, and the tax retained. Mr. Bayley, in his Settlement Report on Parganá Gáomesh, states that the remainder of the cesses above mentioned have been looked upon as part of the rent for several generations, and probably for centuries. An old *zamíndárrí* official, who had been in the employ of the landlord of Gáomesh as an accountant from

the latter part of the last century, and whose ancestors had filled the same post, stated that these dues had been always demanded within his recollection, and that he had always heard they were so from his father. Mr. Bayley also mentions that an original lease was filed in the Collector's Office, being dated 1769, or only four years after the British accession. In this document the cesses above mentioned are specified in full detail along with the rent.

All the other cesses levied by the landholder from his tenants, but which did not properly form part of the rent, were prohibited, although the landlords claimed to be allowed to assess them by the right of 'ancestral custom.' Mr. Bayley, in his *ms.* Report of January 1852, states that only a month previously to that date, Rájá Anand Lál Rái, the *samindár* of Majnámútá, urged upon him the hardship, now that his property was under Government management, of his not ordering the *parádmánik*, or tax upon the head-men of certain castes, to be paid to him. In reply to Mr. Bayley's remark that such levies were distinctly prohibited by Government Regulations, he rejoined that ancestral custom should supersede the Regulations. In spite of the Government prohibition, these irregular and illegal cesses continued to be levied by the landholders, and in many cases are so to this day. The right of the *samindárs* to certain fees on occasions of social ceremonies, such as marriages, births, and deaths, is almost universally recognised by their tenants, and is paid by them in obedience to immemorial custom. The greater part of such cesses, however, have died out, excepting those based upon religious and social ceremonies; and any attempt to exact them in their entirety would now be opposed by the people.

To show the extent to which these cesses were levied in former days, I condense the following list from Mr. Bayley's Report. It shows the different cesses collected in the *samindári* of Majnámútá in 1815, the year before the estate was placed under the Court of Wards. They were divided into two classes, called *bási dáfá*, or miscellaneous cesses, and *rusúmdá*, or customary fees. The first-named class consisted of the following distinct cesses:—(1) *Bibá-hatarpi*, a tax on marriages, levied at the rate of two shillings from each ordinary cultivator, and four shillings from those holding rent-free or lightly assessed lands. A piece of cloth was also presented by each party making the payment. (2) *Sángá salámi*, a fee of two shillings levied on the marriage of a widow. (3) *Shágird peshá*

bibáha, a fee of nine shillings on the marriage of a *shágird peshá*—a dependant or household slave. These people were chiefly kept by rich *káyasths* as domestic servants and labourers. They received no pay, but simply food and clothing, the marriage fee being paid by their master or owner. (4) *Chhatra bukni salámi*, a fee of two shillings paid by those who are permitted to have a painted umbrella (*chhatra*) carried over them at their marriage procession. (5) *Bhojan salámi*, a fee of two shillings paid by the Hijili people on occasions of intermarriage with those of Midnapur. (6) *Dingan salámi*, a fee of two shillings paid by cultivators of one *zamindári* who went to another to be married. The fee was paid to the landholder on whose estate the marriage took place. (7) *Bháibáti*, a fee of two shillings on the division of property, levied from each person among whom the property is partitioned. (8) *Khelná nauki salámi*, a fee or toll of two shillings on boats of merchants who came from other Districts to trade. (9) *Samannay salámi*, a fine on re-entrance into caste after slight deviations. (10) *Asuchi tyág*, a fee on being allowed to shorten the period of thirty days during which the *súdras* have to keep their heads unshaven after the death of a relative, or for any other ceremonial purpose. (11) *Bidhabár*, on granting permission for the use of the village barber and washerman to a widow who had an illegitimate child, and also to the father of the child. Each party paid the fee. (12) *Swámi tyág*, a fee on the voluntary separation of husband and wife; paid by both parties. (13) *Bibáhani*, a fee paid by those who had two children married in one year. (14) *Kasbichár*, a fee for permission to become a public prostitute. (15) *Játimáá*, a fine paid for the purpose of obtaining purification of caste by persons who made sea voyages; also by those who travelled in the same boat with people of low caste. (16) *Jáli*, for permission to barbers to hold a lamp at marriage ceremonies in the house of a fisherman, or other of the low castes. The village barber usually attends all marriages, and it is his duty to hold the lamp at the time of the performance of the ceremony; but the fishermen being one of the degraded castes, it was necessary to purchase immunity from the loss of caste, which would otherwise accrue from his entering their houses. (17) *Barpúrbakáli kanyá*, a fee for permission to a female, after being engaged to one party, to marry another. (18) *Guru tyág chalan*, a fee by a man to obtain readmission to society, after having given up his guru or spiritual guide. (19) *Majur chalan*,

a fee to obtain readmission to caste by coolies who had worked in the houses of those of a lower caste than themselves. (20) *Akál bibáha*, a fee paid by those who marry in inauspicious years. (21) *Akl salámi*, a fine of two shillings for any of the following offences:—For abusing a parent or a Bráhmaṇ, or for beating either; for falsely aspersing another's character; for forcibly removing land-marks; for an affray with a man of inferior caste. (22) *Simápar*, a fine for forcibly taking possession of a part of another man's land. (23) *Behurmatí*, a fine for improper behaviour, by causing the departure of a guest from rudeness; also inflicted upon a guest who rudely takes his departure. (24) *Behukúm bibáha*, a fine for a marriage performed without previous permission. (25) *Asástrí*, a fine of four shillings for each of the following offences:—Upon the village barbers and washermen for serving, without previous sanction, those who had forfeited their right to their services; upon dancing-girls who are also public prostitutes; and upon those who generally act in opposition to any of the orders laid down in the *sástra*, or sacred law.

The second class of these illegal cesses are known as *rusúmatí*, or customary fees, and the following statement shows the number assessed in Majnámutá estate in 1815, and the amount of revenue realized from them by this one landlord:—(1) *Suniá salámi*; (2) *Suniá kharchá*; (3) *Dasárá salámi*; cesses collected from various persons, chiefly *zamíndárá* servants and accountants, on the first day of the New Year. The collections from these three cesses in the Majnámutá *zamíndárá* in 1815, amounted to £56, 9s. 10½d. (4) *Pará-mánikí salámi*; a cess levied from the heads of certain castes; amount realized in 1815, £2, 11s. od. (5) *Ráj siturí*; a cess for providing cloth for the idols (*thákurs*); £27, 11s. 7½d. (6) *Huzúr pánd*, literally, for protection; a personal cess; £17, 19s. 4½d. (7) *Abhisek salámi*; a tax on the occasion of some bathing ceremony of the *zamíndár*; £49, 1s. 3d. (8) *Bázi íjárdár*; a tax for farming expenses; £2, 13s. od. (9) *Nánkárán doáni*; a tax of threepence, or two *ánás*, on every *bighá* of land held free of rent by public servants; £74, 12s. 6d. (10) *Ghát salámi*; landing-duties upon goods, collected from all parties; £67, 6s. od. (11) *Dokán mángan*; a tax upon shops; £2, 12s. 6d. (12) *Bhádui salámi*; a tax collected in the month of Bhádra on account of a religious ceremony; £8, 18s. 10d. (13) *Karárá*; origin not ascertainable, but a tax for some petty acts of omission; £7. (14) *Thákur márd*, literally, striking the

gods ; a tax levied upon those who injure grain by walking over it ; 14s. od. (15) *Jál pánch khatid* ; a tax levied upon fishermen who use a peculiar description of net of this name ; 10s. od. (16) *Hold mángni* ; a tax on rice canoes ; £10, 19s. od. (17) *Páikán áni* ; a tax of three half-pence, or one *áná* a head levied from police *páiks* ; £50, 6s. 5d. (18) *Dudh ság* ; a tax on milk and vegetables ; £2, 10s. od. (19) *Ghát kayeli* ; tax upon weighers of grain at markets and landing-places ; £1, 14s. od. (20) *Kayel salámi* ; a tax levied from village weighers of grain on their nomination ; 14s. od. (21) *Khadru* ; a tax upon ferries ; £2, 8s. od. (22) *Tháná gumáshid salámi* ; a tax upon clerks of police stations, £4, 10s. od. (23) *Kasbián karári* ; a tax upon prostitutes ; 6s. od. (24) *Khál mirápur* ; a tax upon the particular ferry of that name ; amount realized not given. (25) *Nimak chhayáni* ; a tax of ninepence, or six *ánás*, upon each salt manufactory (*khálári*) ; £7, 12s. 3d. (26) *Kultí Kamalpur* ; a tax levied on a particular kind of pulse grain (*dolichos biflorus*) ; £1, 2s. od. (27) *Mihi chául* ; a tax levied upon the growers of the finer descriptions of rice ; £13, 5s. od. (28) *Grám nij jot* ; a tax levied to meet expenses of the cultivation of the *samindár's* own village farms ; £16, 11s. 7½d. (29) *Khádál Bráhman* ; a tax upon a degraded class of Bráhmans who act as priests to a low fishing caste called Khádáls ; 2s. od. (30) *Dighi salámi* ; a tax for the right of fishing in tanks ; 5s. od. (31) *Mohará salámi* ; a tax upon a particular class of barbers so called ; 4s. od. (32) *Játi malá* ; a tax for certain offences or deviations from caste rules ; 9s. od. The total sum realized from these *rusúmat* fees on the Majnámutá Estate in 1815, amounted to £430, 18s. 3d.

In collating the foregoing figures, I have here, as elsewhere in this Statistical Account, calculated the rupee at two shillings, as I have no information showing whether *sikká* or Company's rupees were intended.

MANURE is in general use for preventing the exhaustion of the land. About a ton and a half of cow-dung, valued at about 9s., is considered sufficient for an acre of sugar-cane land. For rice lands, from nine to eighteen hundredweights of manure, valued at from 2s. 3d. to 4s. 6d., is required for each acre. The system of allowing land to lie fallow and thus recruit itself, does not prevail in Midnapur, nor is any strict rotation of crops practised. In the case of *kálá* or double crop land, after the *áus* or autumn rice has been harvested, a second crop of pulses or oil-seeds is

cultivated in the cold weather. This is continued year after year, but cannot be called a 'rotation of crops.'

IRRIGATION is common ; and as the irrigating sections of the Midnapur High Level Canal arrive at completion, it may be expected to be much more frequently resorted to than it is at present. The distributaries and village irrigating channels are being rapidly pushed forward, and it is anticipated that they will be completed, and the whole irrigating powers of the canal available, by April 1876. Rice lands within reach of the canal water are freely irrigated, especially in years of deficient rainfall. The irrigation rate at present charged by the canal authorities upon land using the water, is 3s. an acre in the case of all leases taken out prior to 1st May 1873, and 4s. 6d. an acre for all leases after that date. This rate is fixed for the next four years only, after which it may be raised. I have given a description of the irrigable and navigable powers of the Midnapur High Level Canal in a previous section of this Statistical Account, and also an estimate of its probable ultimate financial results. Besides rice, irrigation is also used for winter crops, such as sugar-cane, *báigun*, radishes, onions, etc. ; and in addition to the canal, tanks, dammed up streams, and small natural water-courses are utilized for the purpose. The irrigation of sugar-cane land, which requires a great deal of water, is estimated to cost the cultivator as much as £3 an acre. Wells are not used for irrigation purposes in Midnapur District.

THE NATURAL CALAMITIES to which Midnapur is subject, are of three kinds,—blights, floods, and droughts,—all of which occasionally afflict the District. Blights, however, never occur on such a scale as to affect the general prosperity of the District, and are usually confined to a few fields here and there. The damage is principally caused by insects, called *bhenpu* and *bhomá*, which destroy the young paddy plants, even after they have blossomed. To kill, or drive them away, the cultivators use burning torches, tied to a long rope or bamboo, and carried over the fields at night ; the insects burn themselves by flying up into the lights.

DROUGHTS are not of frequent occurrence in Midnapur ; nor, when they do take place, are they usually of so severe a character as to cause a general destruction of the crops. Those lands which principally depend for their cultivation upon rain water sometimes suffer greatly in dry seasons, while those which have the advantages of artificial irrigation are scarcely affected at all. There is a great

demand for irrigation in seasons of deficient rainfall ; but this will be fully met when the irrigation works connected with the Midnapur High Level Canal are completed, when the District will be placed beyond the danger of drought. The occasions, since the District passed into the hands of the British, in which droughts have occurred on so serious a scale as to materially affect the general prosperity of the District, were in 1792, 1851, and 1865. In the former year, the price of rice is said to have risen as high as from £1, 1s. 10d. to £1, 7s. 3d. a hundredweight, and the distress was so great that the Salt Agent at Hijili recommended the Board of Revenue to prohibit the export of grain from the District. This proposal, however, was not sanctioned. The drought of 1865 will be subsequently referred to when I come to mention the famine caused by the failure of the rains in 1865, and by the inundations of 1866.

The following paragraphs regarding the localities most liable to drought, and the procedure of Government regarding suspensions and remissions of revenue in seasons of drought, are condensed from Mr. Bayley's ms. Report on Midnapur. The *parganás* most liable to this calamity are Kharagpur, Kedárkund, Balrámpur, Sháhpur, part of Kásijorá, Dhenkiá, Bhanjbhúm, or Midnapur, with the *parganás* between Beldá and Agráchaur, and between Beldá and Dántun, on the east of the great high road. In the Hijili portion of the District, drought is rare, and one week's rain at the very end of the season will be sufficient to save the rice crop, which does not require transplanting as in other parts of Midnapur. With regard to the subject of remissions and suspensions of revenue, the Board of Revenue ruled, in reply to a letter from Mr. Bayley, dated 21st October 1851, referring to the severe drought of that year, that in permanently settled estates the proprietors had no claim to remissions or suspensions of revenue, and that the Collector must only exercise such discretion as is vested in him under Section 11 of Act I. of 1845. Mr. Commissioner Mills, ruling on the same subject in 1851, but referring to suspensions in estates under Government Management, thus wrote:—'In *khás* estates, where the rent is collected from the cultivators, the amount of loss estimated to have occurred, where too heavy to be borne by the peasants themselves, must be abandoned. In villages under Government management and let in farm, inquiry must be made in cases where it is solicited, remissions must be given in cases where the damage done to the crops is considerable, the profit being altogether insufficient to

admit of the losses being made good by the managers or farmers. It is but just to deal fairly with these renters, as no very large profit has been left them; but as all parties will endeavour to exaggerate their losses, it behoves you to exercise the utmost caution in admitting the plea of *nukhsáni* (losses), and their inability to pay revenue in consequence.'

Acting upon these principles, a detailed inquiry was ordered to be made of the individual losses owing to the drought of 1851, which it was estimated had resulted in the loss of nearly five-eighths of the entire rice crop. The following letter of instructions to the officers deputed to make the inquiry, will explain the principles upon which such remissions and suspensions are granted in calamitous seasons:—'You should always have the map by you, otherwise all the bad fields of *two* villages may be shown as those of *one*, in order to increase the average of loss in that *one*. Lastly, you will plainly explain to the farmers and cultivators, that unless within fifteen days of any indulgence being sanctioned the farmers do not fill their *rayatwári* papers, showing how they will distribute among the cultivators (and you should see that it equals the full amount they receive) the sums now remitted to them as a *peculiar indulgence*, such farmers will forfeit all right or title to any consideration or remission whatever. You are requested to visit and examine *every* village yourself, as the drought is very partial, adjacent villages having, the one good, the other bad, crops. You will please to follow out the following principles:—(1) Wherever there has been wilful loss, you will state the loss, but recommend no remission. (2) The loss should be calculated, not on the *khás* assessment, but on the actual collections (*hásil*), less all collection charges (*saranjámi*) of the farmers. (3) The plan of native records for such an investigation should be adopted, viz. a *rayatwári* list of out-turn of crops, in weight and value; and you are requested to take these papers, together with the English and Bengali Final Settlement Statements, with you.'

FLOODS, caused by the sudden rising of the rivers as well as from heavy rainfall, are common in the southern and eastern portions of the District. Within the present century, severe floods occurred in the years 1823, 1831, 1832, 1833, 1848, 1850, 1864, 1866, 1868, all of which disastrously affected the crops. For the protection of the land against inundation, there are several important embankments, maintained by the Public Works Department. These protective works

will be treated in detail on a subsequent page, and I here pass on to a brief mention of the principal inundations that have afflicted the southern and eastern parts of Midnapur (which compose the Hijili portion of the District), showing their effects on the country, the amount of remissions and suspensions which they rendered necessary, and the injury done to the embankments. The Statement is condensed from Mr. Bayley's *ms. Report* :—

(1) In May 1823 a flood occurred which swept away the whole line of embankments. The country was so inundated that the flood broke into the Collector's Court at Contai (Kánthí), and washed away the records. The arable land was greatly injured from the effects of the salt water. An inquiry was made into the losses sustained by the flood, but it was not thought necessary to make any remissions or suspensions of revenue. Much sickness was caused, and numbers of the agricultural population died, or were so incapacitated from labour as to seriously throw back agricultural operations for that and the following year. (2) A second flood occurred in October 1831, when the winter rice crop was well grown. The whole line of embankments was washed away, and the rice crop, which was well advanced, was almost totally destroyed. A full inquiry into the losses sustained was made by Mr. Collector Wyatt, and the Government granted remissions of revenue in consequence, to the extent of £8567, 16s. od. (3) Again, in October 1832, a destructive flood occurred, which did great damage to the ripening crops, and which overtopped embankments fifteen feet in height. An investigation made by Mr. Collector Wyatt into the losses sustained by the cultivators, made it necessary for Government to allow remissions of revenue to the extent of £8469, 2s. od. (4) A more serious flood occurred in May 1833, which again entirely destroyed the embankments, and which was followed by another in September 1834, in which more than half the crops were swept away; 7112 persons drowned, or half the population of the flooded tract; and 865 villages inundated. A careful and minute investigation by three European officers of the District, resulted in Government granting the sufferers remissions of revenue amounting to £62,878, 18s. od., and suspensions to the extent of £49,713, 4s. od. A letter from the Board of Revenue to Government, dated 9th May 1837, thus speaks of these two floods: 'These calamities were of no light or common kind, and their consequences were of no transient or temporary character. The agriculturists had not to suffer merely

the occasional losses of an unprosperous season and a bad harvest, to be repaid by succeeding years of fertility and abundance. They were overwhelmed in two successive years by tremendous visitations of Providence. By the first of these, more than half of the crops were swept away, more than half the population was destroyed, and the fertility of the soil was almost annihilated. Yet this was not the whole calamity. Hardly had a year elapsed before a second destruction took place.' (5) Other floods occurred in January 1839 and May 1840, in the latter of which, although the sea embankments stood very well, the country suffered by the bursting of the interior embankments. No remissions or suspensions of revenue, however, were considered necessary in consequence. (6) Again in August 1845, floods did severe damage to the Kalmijol and Midnapur Embankments; the Fiscal Divisions of Maináchaurá, Sabang, and Kásijorá were totally inundated, and the rice land injured. An investigation into the losses sustained was made by the Native Deputy Collector, but no remissions or suspensions of revenue were considered necessary in consequence. (7) In October 1848, a flood did much damage to the embankments, which were overtopped and breached in many places. The crops were much damaged, and after an investigation by Mr. Collector Malet, remissions were granted to the extent of £1081, 16s. od., and suspensions to the extent of £14,279, 14s. od. (8) In April 1850, another inundation overtopped and broke away the embankments in the sea-board Fiscal Divisions, and along the banks of the large rivers. Fortunately, no crops were on the ground, except indigo, and no remissions or suspensions of revenue were considered necessary. (9) The great storm wave which accompanied the cyclone of October 1864, and which caused such wide-spread devastation and loss of life, will be treated of in a separate account of the cyclone, given in a subsequent page. (10) Also the inundation of 1866, which followed the severe drought of the previous year, and increased the distress then felt. (11) Another severe flood followed in 1868; and several partial inundations in subsequent years.

COMPENSATING INFLUENCES IN CASES OF FLOODS AND DROUGHTS exist, but only to a slight degree, in Midnapur District. If the rice growing on the low lands is destroyed by floods, the loss cannot be compensated by any increased produce of the higher levels, as the latter form but an insignificant portion as compared with the area of the low lands. In the case of drought, however, the loss of crop

sustained in the high lands is partially compensated by the produce of the low lands. If the rains set in early and heavily, the crops growing in low situations are overtopped and *kept* under water, and consequently destroyed. If they set in late, the crops on the high sites suffer from drought. When the rains fall betimes, and in moderate quantity throughout the season, the crops on all parts are generally remunerative, and a more or less abundant harvest is the result. Mr. Bayley, in his Report, states that there may be some particularly low tracts, as for instance a part of Kásijorá, where even a moderate rainfall, not more than barely sufficient for the crops on high situations, is likely to entail the loss of the season's harvest, from over-abundance of water. This is a case, however, which, like many of the calamities of Bengal, might be remedied by engineering skill.

FAMINE PRICES.—The highest prices of rice and paddy reached during the famine of 1865–66 was £1, 1s. 10d. to £1, 7s. 3d. a hundredweight for rice, and half these rates for paddy, or unhusked rice. These prices were reached in the months of August and September 1866 at Kespur village, in the Headquarters Sub-division. These were the highest rates reached anywhere in the District; the highest prices at Náráyangarh mart being 18s. 8d. a hundredweight; while in the town of Midnapur the price of rice never rose beyond 17s. 3d. a hundredweight, which was reached in August 1866. A history of the famine in Midnapur is given at pp. 120 to 132. Up to the present time, the local prices of food grains have not returned to what used to be considered their ordinary rates before the famine. Prior to that calamity, the ordinary selling price of rice was 4s. 1d. a hundredweight, or Rs. 1/8 a maund, and paddy, 2s. 0½d. a hundredweight. In 1871, the Collector returned the ordinary bázár rate of the best cleaned rice at 6s. 9d. a hundredweight, or Rs. 2/8 a maund; common rice, such as that used by the labouring classes, 4s. 4d. a hundredweight, or Rs. 1. 9. 7. a maund. The Collector states that Government relief operations become necessary when the prices of food rise as high as three times above their ordinary rate.

FAMINE WARNINGS.—Failure of local crops, especially of the winter rice crop of one season, an unusual rise in prices, together with an absence of importation of grain from other Districts, serve as a warning of impending scarcity and possibly famine. The Collector states, that if in January or February, soon after the reaping of

the winter rice crop, the price of grain rises as high as three times the ordinary rate, actual famine may be expected later in the year. The District mainly depends upon the *áman* or cold weather rice harvest for its food, the *ásus*, or autumn rice crops, being but insignificant as compared with the *áman*. If, therefore, anything like a total failure of the winter crop should take place, the next September harvest could not make up the loss, and the consequence would be a scarcity amounting to famine. The means of importation in this part of the country, in the event of famine, are reported as insufficient. There are no railroads, and no navigable rivers in the interior of the District. The Midnapur High Level Canal, however, will remedy this state of affairs. When completed it will connect the town of Midnapur with the Húglí at Ulubaría, fifteen miles below Calcutta, and will be navigable throughout its entire length, a distance of fifty-three miles, including the crossings of the large rivers on its route. The three lower sections of the canal, from Pánchkurá to Ulubaría, have been in use for some time; and it is anticipated that the upper section, from the town of Midnapur to Pánchkurá, will be completed, and the canal open for navigation throughout its entire length, during the present year (1873). Hitherto Midnapur has had to depend upon its roads for the means of importation, as a protection against scarcity and famine. These are in tolerably good order, and might to a certain extent avert the extremity of famine, even without importations by means of the canal. As a further protection against famine, the Collector states that the only suggestion he can offer, is the extension of the system of navigable canals running throughout the District, and connected with the large rivers of the surrounding tracts.

THE FAMINE OF 1866.—Midnapur is the border District between Bengal and Orissa. The latter Province was desolated by the great famine of 1865-66, which was also severely felt in parts of Lower Bengal. As might be expected, Midnapur suffered more than any other District of Bengal Proper from this memorable calamity. The following brief history of the famine in Midnapur is compiled from official letters and papers, and the Report of the Famine Commissioners. The severe and protracted drought of 1865 had resulted in the loss of about half the main rice crop of that year. Distress first manifested itself in the eastern and southern portions of the District (Hijili and Tamluk) in September 1865, by the frequency of grain robberies. In Doro and Gumgarh Fiscal Divisions, of

which nearly three-fourths of the population had been swept away by the cyclone of 1864, high prices began to prevail in September, and the emigration which then set in from the place disclosed a belief among the people of approaching famine. On the 21st September 1864, the Deputy Magistrate of Tamluk reported that one-fourth of Doro Fiscal Division was lying waste from want of cultivators to cultivate it, although in the northern and north-western parts of the same *parganá* the crops were promising. He added, that not less than a thousand persons, sufferers from the cyclone inundations, were receiving charitable support, and that no relief could be anticipated till about the middle of November, when the main rice crop would be gathered in. The *mahájans*, or grain dealers, wanted for themselves such rice as had been saved from the cyclone inundations, and they were unwilling to sell. No anticipation of drought, however, was entertained by the Deputy Magistrate, although he suggested that funds for the relief of the distressed might be supplied. In the neighbouring part of the District, Hijili, the Deputy Magistrate of Nagwán reported that the high prices prevailing in Calcutta were drawing away large quantities of rice, and expressed his fears that this circumstance alone might produce a famine in his neighbourhood; while at the same time, in the central and north-eastern parts of Hijili, which had chiefly suffered from the effects of the cyclone, the cultivators were severely experiencing the want of grain. A splendid harvest, however, was anticipated later in the autumn, and the Deputy Magistrate, while asking for money in aid of the prevailing distress, did not consider that a state of famine had been reached. So ended the year 1864.

The rains of 1865 broke up unusually early; no rainfall of any consequence occurred later than the 15th September; and as time wore on, and the drought still continued, the aspect of affairs became very grave. Early in October, the Magistrate, Mr. Herschel, proceeded on a tour through the District, with a view to ascertain what foundation existed for the anxiety which began to be felt, and the rumours of impending famine which became rife. The result of this investigation was to confirm the accounts given of present, and the apprehension entertained of future distress. On the 13th October, the Deputy Magistrate reported the drought as becoming serious; that one-fourth of the rice crop had already perished; and that if no rain fell soon, 'he had no doubt there would be a famine, the like of which had not been seen or heard of for many years.'

The autumn drought of 1865, succeeding the inundations of the previous year, led the grain dealers to refuse to make advances to the cultivators except in exchange for personal property. The middle and next lower classes, who were possessed of articles that they could pledge, were saved from want; but the poorest classes, who were accustomed to live on daily wages, as well as the old and infirm, widows and orphans, dependent on the charity of their neighbours, already began to be driven to extremity. It was not that rice was absolutely wanting; for large imports were at that time taking place from the Balasore District, and it was also being brought from the central parts of Midnapur. But the price, which then ranged from 7s. to 9s. 4d. a hundredweight, or from twelve to sixteen *seers* per rupee, was quite beyond the means of the poorer classes in Hijili. A few deaths were reported about this time, but were not clearly established. On the 17th October, the Magistrate, in reporting the distress in Hijili to the Commissioner of the Division, proposed to establish at once six or seven rice kitchens, to be supported partly by private subscriptions, and partly by contributions from Government, as the landlord of the greater part of Hijili. The proposal was approved by the Commissioner, and public meetings of the residents were held at Midnapur, Nagwán, and Tamluk, at which subscriptions were collected or promised, for the relief of the distressed.

In December 1865 came a certain amount of relief, in consequence of the harvesting of the rice crop. On the 20th of that month, a meeting was held at Midnapur to take into consideration the propriety of realizing the promised subscriptions, in anticipation of an expected renewal of high prices in March and April. The unanimous opinion of the meeting was, that the promised contributions should be called in. Measures were taken to this end; but in the more favourable aspect of affairs which then presented itself, the ardour of the subscribers had cooled, and only a comparatively small portion of the amount originally promised was obtained. Similar meetings were held at Tamluk and Nagwán, at which all the subscriptions that could be obtained were collected, and the subscribers recommended that rice should be purchased with the money while it was comparatively cheap, and stored against the time when it would be required, and when it would be selling at a dearer rate. The several sums collected were kept in hand; but no rice was purchased, and no further active measures in connection

with relief were adopted until the month of May following, when they became imperative.

From the latter part of 1865, gang robbery (*dákáiti*) and thefts with violence had been rapidly increasing, owing to the general distress, and to a 'rumour, if not a prospect, of impending famine,' until, in April, the Commissioner of the Division visited Midnapur, and reported on the increase of crime. From November to April, 34 cases of gang robbery (*dákáiti*) had been reported in the four western police circles (*thánds*) adjoining the Tributary State of Morbhanj and the Mánbhúm District, which are inhabited principally by a rude class of people belonging to the Santál and Bhumij tribes, and are covered with jungle. In the three next police circles, two of which are about half under jungle, the gang robberies had amounted to 16. The remaining fifteen police circles had produced 17 such cases only out of an aggregate total of 67. In the seven jungle police circles, grain had generally been the object of the plunder, whereas in the others silver and metals had been carried off. The accused invariably confessed, and pleaded that they had been driven to the commission of the crimes by sheer want.

The Commissioner, in reporting his views on the increase of crime, wrote as follows on the 15th April 1866 :—' In the month of November last, under a more sudden and alarming prospect of famine than is now entertained, the prices were generally twenty per cent. higher than they are at present. In Midnapur, rice was 14s. a hundredweight, or eight *ser*s for the rupee; and even now prices are exactly double what they were before the cyclone of 1864. In the year 1766, the price of rice was as high as £1, 8s. od. a hundredweight, or four *ser*s for the rupee, equivalent to about £3, 14s. od. a hundredweight, or 1½ *ser*s per rupee at the present time; but with rain to encourage sales, of which there seems every prospect at present, I have every hope that 14s. a hundredweight, or eight *ser*s for the rupee, will not be reached again. Mr. W. Terry, the manager of Messrs. Watson & Co.'s extensive property in this District, informs me that he has no apprehension of famine, and that as soon as rain falls, prices will immediately go down, and employment in cultivation will put a stop to further plunder.

' In dealing with the increase of crime, there has been no want of activity on the part of the police, or of severity on the part of the courts. The punishments have invariably been heavy, but in my

estimation not too severe for the offence, which has gradually become, no matter from what cause, habitual, and which must be put down by example. I believe that the late Judge, Mr. C. P. Hobhouse, who has tried many of these cases with the greatest possible care, was under the impression that there was no such grievous distress as to palliate the offence, and looked upon the plunder of other property simultaneously with that of rice as evidence that it was general lawlessness, rather than hunger, which led to these gang robberies. In one case, however, of rice plunder, in which hunger was pleaded before the Judge, and a sentence of six months' imprisonment was awarded to the offenders, the High Court animadverted on the inadequacy of the sentence, and I think reasonably so; as in that case, as well as in most of the others that have come to my notice, there is clear evidence of the parties of *dákkáits* going out armed with a view to resist opposition. I have unfortunately not had an opportunity of seeing Mr. Hobhouse, and ascertaining from him precisely what his opinion was; but if it be such as I have stated, I must differ from him. There is not a single person with whom I have conversed on the subject during my stay in Midnapur who does not agree with me, that ample evidence exists to prove that hunger is the origin and cause of the augmentation of crime—(1st) in the fact that such cumbersome property as rice is plundered in so many cases; (2d) in the large number of persons that are engaged; (3d) in the entire want of any organized scheme known to the professional *dákkáit*; (4th) the readiness with which a majority of the accused confess; and lastly, the reason assigned for the commission of the crime.'

In order to check the increase of offences, the District Police was strengthened by the addition of two special Inspectors and fifty men in January and February, and the village police apportioned into small bodies under the orders of the constables. It was also recommended to extend the provisions of the 'Whipping Act' to certain parts of the District. The Commissioner wrote: 'The jails are, I believe, no punishment to the ignorant class of Bhumijis and Santáls at this season; but on the contrary, with the food and shelter provided, they are rather agreeable and genial. I would therefore strongly recommend that the terms of the Act be immediately extended to the jungle police circles (*thánds*) of Gopballabhpur, Jhárzáon, Bhámpur, Garhbetá, and Sálbani.' The Act was extended accordingly.

Meanwhile distress was getting sharper, and, as anticipated at the meetings held at Tamluk and Nagwán, prices rapidly rose again soon after the gathering in of the rice harvest, which the drought had rendered only a half crop all over the District. In April the Commissioner reported, that although, judging by prices, the distress was not so great as it was just before the harvest, yet that the old and infirm were beginning to die from insufficient food. Relief measures became necessary in this month. The Collector, who had gone into the interior of the District, thus describes the distress at Gopíballabhpur:—‘The people who gathered round us to receive food were very emaciated. Rice was still selling at 9 and 10 *seers* for the rupee (from 11s. 2d. to 12s. 5d. a hundred-weight), but I commenced at once to organize measures for general relief.’ On the 21st May, the Collector noted in his usual weekly price-current that ‘there is no doubt now that deaths from starvation among the old, the weak, and the children are occurring.’ Starving people from the interior began to flock into the town, and on the 24th May, when distribution of rice purchased with the funds already in hand commenced, upwards of two hundred persons applied for relief. Meanwhile the Board of Revenue granted the sum of £500 for relief operations in Midnapur.

On the 28th May 1866, a public meeting was called for the purpose of organizing systematic relief operations; at this, resolutions to the following effect were passed:—(1st) The appointment of sub-committees and local relief committees in the interior, under the control of a central committee at the headquarters station; (2) the appointment of a labour sub-committee, for the purpose of exacting light work from such applicants for relief as were capable of labouring in some form for their daily wages; (3) the appointment of committees to superintend the gratuitous distribution of food to those who were physically unable to labour; (4) the institution of an infirmary for the sick and diseased paupers, whom it was considered desirable to separate from the rest, and of an asylum for the support of such paupers as were unable, from weakness due to starvation only, to attend the daily distribution of food in the town. For distributions in the interior, Messrs. Watson & Co., who hold large estates in the District, agreed to allow their assistants to superintend the gratuitous distribution of rice at the factories of Chhattarganj, Goáltor, Gutia, and Sildah.

Thirteen relief depots and sub-depots were immediately estab-

lished, and the reports received from them up to the end of the first week of June showed that the Government grant of £500 would not last long. Midnapur not being a wealthy District, considerable difficulty was experienced in raising private subscriptions. The Collector accordingly wrote to the Commissioner on the 12th June, to the effect that, even if the Central Committee could succeed in collecting private subscriptions to the amount of £100, that sum, added to the grant from Government, would suffice for little more than the outlay to the end of the month. Moreover, it was to be expected that the number of applicants for relief would increase as it became generally known that Government had come forward to aid the starving. A further grant was therefore asked from Government. At the same time an urgent appeal for assistance was made to all landholders within twenty miles of Midnapur, to the Rajá of Jhárágáon, and to several non-resident proprietors. The appeal, however, was but scantily responded to.

A further grant of £3000 was made by Government in the Public Works Department; and at a meeting held on the 15th June, it was resolved, in consultation with the Executive Engineer, to put in hand the following special relief works:—(1) Cleaning and reopening an important drainage line in the town of Midnapur, known as Malet's *khál*, and which had been allowed to fall into disuse; estimated expenditure, £400. (2) Excavation of new tanks at the following places:—(a) At Sámlí, about four miles south of Dántun, on the Cattack road; estimated cost, £250. (b) At Daijurí, on the Bhímpur road, about sixteen miles west of Midnapur; estimated cost, £250. (c) At Sátbankurá, on the Ráníganj road, twenty miles north of Midnapur; estimated cost, £250. (d) At Garhbetá, ten miles farther up the same road; estimated cost, £300. (3) Cleaning tanks in the vicinity of the town of Midnapur; estimated cost, £50. Total estimated cost of the above works, £1500. The balance of the grant, £1500, was reserved for a large tank then in course of excavation close to the site of the new jail.

Between the 17th May and end of November 1866, an average of 484 men and women were daily employed on these and other minor works in the station of Midnapur, the result of the operations being thus reported by the Executive Engineer:—‘At first, I gave daily-labour payments, namely 3½d., or 2½ *ánás*, for men; 3d., or 2 *ánás*, for women; and 2½d., or 1½ *ánás*, for children; but this plan was

found to yield so little work for the expenditure incurred, that, to avoid excessive rates, I resorted to task-work. The rates were proportioned to the stiffness of the soil. As the excavations proceeded, the difficulty of digging increased, and I have given as high as 15s. od. or Rs. $7/8$ per 1000 cubic feet. I estimate that the rates throughout enabled an able-bodied labourer to earn from $4\frac{1}{2}$ d. to $5\frac{1}{4}$ d., or from 3 to $3\frac{1}{2}$ ánás per diem; and women about $2\frac{1}{4}$ d. or $1\frac{1}{2}$ ánás each. The average rate at which rice was sold between May and November was 16s. a hundredweight, or 7 *seers* per rupee, which, taking the average amount earned by men and women together at 3d., or 2 ánás, each per diem, would give nearly two pounds of rice per head daily. I never paid my work-people in any other way than in cash; but at each place where work was in progress the Collector had a depot of rice, from which the labourers were supplied. When the rains set in, the excavated portions of the tanks filled with water, and the labourers could no longer dig, but as far as possible they were employed in working and dressing the banks. Out of the grant of £3000, I made over to the Collector £740 for the purpose of constructing certain jungle roads, the expenditure on which was kept in his hands.

‘I consider that if the relief works had been commenced earlier in the season, they would have done much more good. As it was, the people who applied for work were frequently so weak and emaciated that they were not fit for labour. After I commenced work on the central prison tank, the applications from women became much in excess of those from men; and as the women could not dig, and I required not more than two women to each man, I was obliged to refuse the women who were in excess. At first I got men in larger numbers, but as soon as agricultural operations commenced, many of the men went off, leaving the women. There was, however, some employment for women under Mr. Verner, the Assistant Magistrate. When the contract system was adopted, people often worked in families, men and women together; but women who had no men belonging to them probably had difficulty in obtaining employment. It was only at the commencement of the agricultural operations that the number of women seeking work was in excess of the men. I did not observe this to be the case later in the season.’

Meanwhile the famine was growing more severe, and by the end of June 1866, eighteen relief depots had been opened in the District.

A European Deputy Magistrate, Mr. Man, was deputed into the interior of the District on the 20th June, and was on tour for about two weeks. The reports received from that gentleman showed that distress was on the increase, and that deaths from starvation were occurring, particularly in the neighbourhood of Dántun, and in the Jungle Mahals, where rice was practically unobtainable. The depots in the interior were on the whole working satisfactorily, though the sub-committees and gentlemen in charge of them were not, as a rule, disposed to carry out the principle insisted on by the Central Committee, that gratuitous relief should be given only to those who were physically incapable of all labour. The reasons for this were said to be—*first*, that though many of the paupers were willing to work, there was no work for them at that season of the year; and *second*, that when applicants capable of labour were told to go to Midnapur, where work would be provided for them, they refused lest they should die on the road. For these it was absolutely necessary to provide local relief, if they were not to be left to starve.

At the beginning of July 1866, rice sold in Midnapur town at 17s. 3d. a hundredweight, or $6\frac{1}{2}$ *sers* for the rupee; and in the Jungle Mahals at *nominally* 16s. a hundredweight, or 7 *sers* for the rupee. In the latter part of the District, however, it was not procurable, and the police frequently reported that they could not obtain a sufficiency for even their own use. The opinion at this time seems to have been almost universal that there was plenty of grain in the District, but that the *mahájans*, or rice merchants, would not part with it except at exorbitant prices. Whether this was really the case or not, however, it became clear that importation of rice on a considerable scale must be undertaken if the depots already established were to be kept at work. In August relief was afforded to nearly ten thousand people daily throughout the District, and instructions were given to all the depots to issue only 4 *chhatáks* (8 oz.) of dry rice to each adult, and half that quantity to each child. The Central Committee considered that experience warranted them in pronouncing this scale of rations to be sufficient; but the Board of Revenue shortly afterwards directed that the daily rations of adult paupers should be raised to 6 *chhatáks* (12 oz.), and of children to 3 *chhatáks* (6 oz.). With regard to the question of the sufficiency or otherwise of the daily allowance thus given, the Famine Commissioners have made the following re-

marks :—‘We are of opinion that even 6 *chhatáks* ($\frac{3}{4}$ lb.) of rice daily, without any nitrogenous food, is insufficient to maintain healthy existence in an adult; still more so the smaller quantity first prescribed by the Midnapur Committee. The low scale was adopted in the belief that the paupers nearly doubled their allowance by begging in the town; but we think it would have been better to avoid the risk of insufficiency by supplying to each pauper such a quantity of food as was considered by medical authority to be sufficient to support life in health. In the centres in the interior there was no such opportunity of supplementing the allowance by begging; and at one of these the quantity given was at one time as low as 2 *chhatáks* (4 ozs.) to each pauper. We have no doubt that in this District an unfortunate error was committed on this point. . . . It may, however, be explained that the reluctance of the Committee to increase the daily rations arose from a desire not to check public charity. It was ascertained that some paupers, after receiving their daily allowance of dry rice in the morning, were in the habit of going to the town, where, in the course of the day, they obtained from charity, nearly, if not quite, as much more. The whole was then cooked and eaten in the evening.’

In July 1866, a sum of £100 was remitted to Calcutta to purchase rice; and the Board of Revenue authorized the Collector to advance from the public treasury any amount that might be needed for the purpose of organizing effectual measures for relieving the distress. The Board, however, declined to undertake the importation of grain into Midnapur District, as they had been compelled to do in the case of Orissa, and would leave importations to the Central Committee. The Collector accordingly telegraphed for rice from Calcutta; and charitable depots, for sale of rice below cost price, were opened for the benefit of the poorest money-earning classes. It was also resolved that cooked food should be introduced as a compulsory measure at all depots, the Commissioner being of opinion that, by not allowing the paupers the option of taking their rice raw or cooked, many, to save their caste, would decline to accept relief at all. Strict instructions were issued to this effect, and at the same time the necessity of introducing some sort of labour system amongst the paupers was urgently pressed upon the several Local Committees. With the exception of two or three instances, it is believed that the rules with regard to the issue of cooked food were strictly carried out at all the depots, and the

result soon appeared in a considerable reduction in the number of applicants. It was alleged that the paupers preferred starving to losing their caste, as they believed they would do if they ate the cooked rice offered to them. It may, however, be doubted that any such preference was really entertained : it is more probable that the refusal to receive cooked food arose from a desire to cause the issue of it to be discontinued. There is nothing to show that a single pauper sacrificed his life on account of this prejudice. The class of people to whom gratuitous relief was given belonged to the very lowest people, who are not ordinarily very punctilious about caste observances.

The famine reached its height in the months of August and September, and a special Deputy Collector was appointed to superintend relief operations in Dántun Fiscal Division and the Jungle Mahals, where the scarcity was sores. The Board of Revenue, despite its previous resolution not to import rice into the District, was forced to take action, and despatched the Government steamer *Feroze* to Rangoon for a cargo of rice, to the value of £3000, for Midnapur. Accordingly, a cargo of 4628 bags of rice arrived at Diamond Harbour on the 24th September. Arrangements had been previously made for unloading the vessel ; and by the 1st October the rice was on its way to Kailá Ghát, the point where the Calcutta and Midnapur Trunk Road crosses the Rúpnráyan, thence to be conveyed to Midnapur town and the interior.

The stock of rice thus received was considered to be more than sufficient to last out the famine ; and from the beginning of October the distress began to decrease. During that month all the charitable sale shops that remained open at the end of September were closed, with the exception of those at Dántun and Kasiárl, and those for the sale of food to the men employed on public works at Kharagpur, Sámlí, and Jalburí. The distribution of gratuitous relief, however, proceeded without interruption, the number of applicants gradually declining. During the month of November the charitable sale shops still remaining open were closed. The prices of grain rapidly lowered as soon as the rain in October gave assurance of an abundant harvest.

At a meeting of the Central Committee, held on the 6th November, it was resolved to bring relief operations to an end, by closing all the depots after the 15th. The last reports received from the interior showed that rice was selling at prices varying from 12s. 5¼d.

a hundredweight, or 9 *sers* for the rupee, in Gopfbalabhpur, to 10s. 2d. a hundredweight, or 11 *sers* for the rupee, at Dántun; 8s. 3½d. a hundredweight, or 13½ *sers* for the rupee, at places to the northward; and 7s. a hundredweight, or 16 *sers* for the rupee, at Kasiárf. In Midnapur town itself, the price of rice varied according to the quantity exported, from 8s. to 10s. 2d. a hundredweight, or from 14 to 11 *sers* for the rupee. As these rates indicated that the famine was at an end, it was resolved to close the smaller depots, giving to each adult pauper a piece of cloth, eight *ánás* (a shilling) in money, and rice sufficient to support him, at the rate of 8 *chhatáks*, or 1 lb. a day, up to the 30th November. Children were to receive half these allowances. The depots were all closed on the date fixed; but the asylum for the weak, with the infirmary and hospital for sick and diseased paupers, was kept open some time longer.

The average number of paupers relieved daily from June to November was as follows:—June, 5155; July, 7442; August, 9606; September, 8752; October, 6476; November, 4247. The total number of relief centres and sub-depots established from first to last in Midnapur District was twenty-three. The first opened was that of Gopfbalabhpur, on the 19th May; closed on the 30th November. The last opened was that of Jámbaní, on the 26th August; also closed on the 30th November. No accurate statistics of the mortality in Midnapur caused by the famine can be procured. The Collector is of opinion that it amounted to about 50,000, or one-tenth of the total population in the tracts seriously affected. He estimated that in the western part of the District from ten to fifteen per cent. of the population died of starvation and diseases induced by it; that in the central portion, and in the Contai (Kánthf) Subdivision, from two to three per cent.; and in Tamluk a half per cent. perished. The worst suffering was in the jungle parts adjoining Mánbhúm District. Mr. Terry, the manager of Messrs. Watson & Co.'s estates, speaks of the distress in that tract in the following terms:—‘There the stone-masons and the iron-smelters one and all died. I don't think that any relief reached them. They kept to the hills and jungles, and never came to us. Some relief was sent out to a place caled Balbáhání for them, but it was too late, and, when it was sent, was insufficient in quantity. They did not get enough.’

The funds raised for the relief of the distressed amounted to £7735, contributed by the Board of Revenue and the Calcutta

Famine Relief Committee, to which £2373, 10s. were added by subscription. Besides this, 10,469 hundredweights of rice were supplied to the District at a cost of £5303, 8s., which, deducting the sum of £711, 9s., realized from charitable sales of rice, leaves a total of £14,700, 9s. spent in affording relief to the starving population. This, however, is exclusive of money expended on public works for the purpose of providing labour for the poor. The sum of £7373, 12s. was placed at the disposal of the Magistrate for the employment of labour on works, of which £4312, 16s. was expended up to the end of November. Also £16,819, 10s. were placed at the disposal of the officers of the Public Works Department for ordinary and special works, and of which £10,459, 12s. were returned as expended.

The Famine Commissioners sum up the results of their inquiry into the distress in Midnapur in the following words:—‘ It is clear that the nature and degree of the distress were not known, and operations were not commenced sufficiently early. Comparatively large as was the relief at last afforded, the Collector does not think that at best it reached half the starving population, and there was unhappily a large mortality, estimated about 50,000, or about one-tenth of the whole population of the tracts, seriously afflicted. But in some of the more remote parts the mortality was, it is to be feared, larger than this proportion. Mr. Terry’s statement seems to show that in some parts the labouring population died in larger proportion; and it is stated that in one jungle tract the population of stone-masons and iron-smelters almost entirely disappeared. Late in the season rice was imported by the Board of Revenue, but it was too late. It then proved that the Collector’s later estimates of the amount of relief required exceeded even the eventual necessity. The new crop was excellent. From October the famine very rapidly abated, and when the crop came in there was cheapness and plenty.

‘ Although there were exceptions, the Collector states that, notwithstanding the wealth and resources of the District, the natives, as a body, did not assist till pressed to do so. The *saminddrs*, who did much, were the exception. The superior classes of cultivators seem to have suffered very little, but doubts have been thrown upon the voluntary character of some subscriptions for the sufferers realized from them.’ The foregoing account does not include the two Fiscal Divisions of Chandrakoná and Bardá,

which, although now included in Midnapur, at the time of the famine formed part of Húglí District. Considerable distress was felt by the weaving population in this part of the country, but it does not call for separate notice here.

EMBANKMENTS.—The Midnapur embankment system forms one of the most important features of the District. I condense the following paragraphs on the subject from Mr. Bayley's *ms. Account of Midnapur, 1852*. Previous to our acquisition of the country, the charge of embankments appears to have been borne by the *samíndárs*. The Company's Government at first appointed the local officers as *ex-officio* superintendents, to watch the condition of the embankments, and see that they were kept in a proper state of repair. Regulation XXXIII. of 1793 entrusted the Collector with this duty, and authorized him to employ a professional officer, but at his own responsibility, to complete the works required, subject only to the necessity of reporting to the Board of Revenue, who passed the estimates. In 1801, Lord Wellesley, having in view the effects of the inundation at Murshidábád, appointed a committee of officials at that station to the charge of the embankments, and this plan was recognised in other parts of the country by Regulation VI. of 1806. These committees were ultimately abolished by Regulation XI. of 1829, and their powers vested in special officers appointed by Government.

Mr. Bayley, in his Report, thus describes the system under which the Midnapur embankments were maintained in 1851 :—' In Mahishádal and Tamluk the Government maintains the Gánguriá and Bálur, or the sea and large river external embankments ; and also those of the larger *Hásiá* embankments, *i.e.* those of the salt and tidal *kháls* which are connected with, and dependent on, the external large embankment. The *samíndárs* of these two important estates (Mahishádal and Tamluk) are bound to keep up the interior embankments, or *grámbherís*. In Kutabpur, Chitwá, Kásijorá, Maináchaurá, Bagrí, Nárájol, and Sháhpur, the Government constructs and maintains the river embankments, and charges the *samíndárs* in rateable proportions with the cost, and which is added to the revenue they have to pay to Government. In Mandalghát, part of which is in Midnapur and part in Húglí District, Government constructs one mile of embankment, and the *samíndár* the next ; and so on, a mile each alternately. Thus, if Government spent £2000 in constructing good embankments, and the *samíndár* will

not follow completely and uniformly the example which the system is intended to provide, all the Government money may be thrown away, and good embankments rendered useless by a single weak point in the part maintained by the *samindár*. Further, interlaced with Mandalghát is another *parganá* called Kálur, in which the *samindárs* are alone responsible for the maintenance of the embankments; and any neglect on their part may damage, more or less, the whole Mandalghát line of embankments.'

Such a system could only result in failure, and Government was forced to step in and take charge of the embankments, recovering a portion of the cost from the *samindárs*. The most important part of the embankment system of Midnapur are the large embankments in Hijili, along the sea-coast and the large rivers and tidal *kháls*, maintained for the protection of the country from inundations of salt water from the Bay of Bengal. On this subject I extract the following from Mr. Bayley's Report (1851):—'Either Hijili should be efficiently protected, so that no remissions of revenue on account of inundation could become necessary, or the embankments should be abandoned, the *samindárs* receiving an allowance on that account, and having no claim to indulgences in the shape of remissions or suspensions of revenue. Under the present system, even if the line of embankments in a particular *parganá* has been generally constructed of sufficient section and in an efficient manner, if any one particular gap or breach is left neglected, the salt water comes in by that, and thus not only renders the vast sums spent on the other parts of the embankment so much money thrown away, but the injury done to the crops has to be met by remissions or suspensions of revenue; and if this indulgence is not granted, depopulation follows. There is no obstacle whatever to the perfect fertility of Hijili, if the sea embankments and the connecting embankments along the rivers and tidal *kháls* are of sufficient uniform strength throughout. . . . With regard to the height to which the sea and tidal *khál* embankments should be constructed, my recommendation was that the former should be eighteen feet high, with corresponding crest and slopes. The river and tidal creek embankments should be equally strong at their point of junction with the sea embankments, and gradually diminish in height as they recede from the sea. Mr. Ricketts, in his Minute dated the 6th January 1851, proposed that the sea embankments should be 23 feet high, and Captain Spens that they should be 15. The wave of the gale

of April 1850 was 13 feet high ; and I saw, in Orissa Bálisháhi, a sea boat on the top of a 9-feet embankment, which was blown there by the gale of the 23d October 1851. . . . It will be a subject of well-merited regret if, for the sake of saving the cost of an extra two or three feet in the height of the embankments, we expose the country to inundation, and the large sums of money necessary even for fifteen-feet embankments liable to waste. The *retirement* of some of the sea, and especially the tidal *khál*, embankments, as well as a great improvement, or rather renewal, of the sea embankments in Kálindí Bálisháhi and Birkul *parganá*s, is imperatively required. The Government has ordered definitely, that during this working season (1851-52) *all* the sea embankments should be made 13 feet high, and with an 8-feet crest, and the tidal *khál* embankments three feet above the highest known flood level. . . . But this order comes too late ; for Kálindí Bálisháhi, Kismat Patáspur, Dattakharui, and Naruámutá (all *parganá*s under Government management), have suffered very much from this order not having been issued and acted up to some years ago. A glance at the *parganá* maps will show how they are liable to inundation from the Sarpái, Bágdá, and Rasúlpur rivers, while the embankments are so low as to be useless.

‘I may mention in this place, that the improvement of the embankments involves sometimes absorption of lands, which at the time of the Settlement of 1844 were not interfered with by the then embankments. No cases for compensation for such lands have yet come before me for final adjustment : firstly, because the executive officer has nowhere completed his line of embankments, even to the height of thirteen feet sanctioned ; secondly, because the question of the eventual size of the embankments (which certainly in the seaboard *parganá*s should not be less than eighteen feet) is still unsettled and before Government. The question, therefore, of the quantity of land required to be taken for earthwork, etc., cannot yet be determined. When the final size of the embankments is fixed, the land required will be ordered to be valued under Regulation I. of 1824, on the spot by the Deputy Collector and appraisers.

‘The system followed in the Embankment Department for procuring labour is this. The executive officer takes security from the *dároga* or overseer, and looks to him for the execution of the work requiring labourers. The *dároga* employs *dafúddars* or foremen, to

COST OF EMBANKMENTS IN MIDNAPUR DISTRICT FROM
1831-32 to 1850-51.

Years.	Government Embankment.		Zamindár Embankment.		Total.	
	£	s. d.	£	s. d.	£	s. d.
1831-32	20,891	4 11	2,496	6 1	23,387	11 0
1832-33	21,692	15 6	3,469	1 6	25,161	17 0
1833-34	16,553	7 5	504	19 5	17,058	6 10
1834-35	7,552	8 9	5,385	17 1	12,938	5 10
1835-36	16,281	6 10	2,478	15 4	18,760	2 2
1836-37	2,017	8 0	1,985	2 10	4,002	10 10
1837-38	10,911	18 10	2,679	19 5	13,591	18 3
1838-39	13,392	14 2	3,568	17 4	16,961	11 6
1839-40	7,669	12 1	2,850	1 1	10,519	13 2
1840-41	13,209	10 9	3,705	15 6	16,915	6 3
1841-42	9,278	4 3	40	13 5	9,318	17 8
1842-43	9,846	10 9	2,459	5 3	12,305	16 0
1843-44	11,511	8 1	2,890	18 7	14,402	6 8
1844-45	13,806	8 3	5,128	2 11	18,934	11 2
1845-46	10,901	19 8	2,640	19 0	13,542	18 8
1846-47	6,196	10 10	1,604	4 2	7,800	15 0
1847-48	7,219	7 8	1,144	8 6	8,363	16 2
1848-49	9,641	13 10	1,675	2 5	11,316	16 3
1849-50	9,554	7 8	3,053	18 6	12,608	6 2
1850-51	16,569	11 7	2,940	0 0	19,509	11 7
Total for 20 years	234,698	9 10	52,702	8 4	287,400	18 2

procure the necessary labour. A man working very hard makes about 1½d. or 2d. a day (from 4 to 5 pice) at the present rates, supposing no improper deductions are made from it. My own impression is, that if the provision of labour and work of maintaining the embankments were left to the Barúás or Village Heads, the work would be more profitable to Government, and more satisfactory to the labourers. Security should be taken from each Barúá, and also from one Barúá for another; they should be paid by the Executive Engineer, or a European Sub-Assistant, receiving advances only to the extent of their security; and also that they should have no claim to remission or suspension in case of injury to their cultivation by salt water.'

Since the date of Mr. Bayley's Report, the Midnapur Embankments have received the constant attention of Government, and large sums are annually expended in maintaining them in an

COST OF EMBANKMENTS IN MIDNAPUR DISTRICT FROM
1857-58 to 1872-73.

Years.	Government Outlay.						Landholders' Outlay.		Grand Total	
	Original Works.		Repairs.		Total.					
	£	s.	£	s.	£	s.	£	s.	£	s.
1857-58	2,602	12	10,872	2	13,474	14	3,418	8	16,893	2
1858-59	321	16	5,827	4	6,149	0	4,470	8	10,619	8
1859-60	1,878	6	5,319	16	7,198	2	5,365	8	12,563	10
1860-61	1,489	14	6,205	18	7,695	12	2,500	12	10,196	4
1861-62	1,337	6	9,760	10	11,097	16	2,913	0	14,010	16
1862-63	17,972	0	12,604	2	30,576	2	7,041	14	37,617	16
1863-64	13,797	16	13,893	2	27,690	18	4,428	14	32,119	12
1864-65	10,703	6	16,246	6	27,009	12	6,473	8	33,483	0
1865-66	13,944	12	18,482	12	32,427	4	4,327	2	36,754	6
1866-67	12,233	8	7,888	8	20,121	16	2,321	12	22,443	8
1867-68	7,081	12	8,643	4	15,724	16	3,068	0	18,792	16
1868-69	12,631	18	11,593	2	24,225	0	3,493	6	27,718	6
1869-70	15,188	10	11,722	8	26,910	18	4,576	12	31,487	10
1870-71	13,926	12	8,411	2	22,337	14	8,010	16	30,348	10
1871-72	12,105	2	9,842	14	21,947	16	3,925	10	25,873	6
1872-73	4,593	12	7,819	16	12,413	8	6,897	2	19,310	10
Total for 16 Years	141,868	2	165,132	6	307,000	8	73,231	12	380,232	0

efficient state of repair. Prefixed are two tables showing the cost of maintaining the embankments during 20 years under the Company, and 16 years under the Crown. The first table exhibits the amount expended by the Public Works Department on Government and *samindári* embankments in Midnapur, from the year 1831-32 to 1850-51 inclusive. The money expended on the *samindári* embankments does not form a final charge on Government, and, except in a few isolated cases in which the amount is remitted, the sum expended on this head of the account is realized from the landholders.

The figures in the first table are collated from Mr. H. V. Bayley's *ms. Report on Midnapur*. They show a total expense of maintaining the Government and *samindári* embankments in Midnapur District, amounting to an average of £14,370 per annum, for the 20 years ending 1850-51, of which an average of £11,735 per annum was expended on Government, and £2635 per annum on *samindári*

embankments. For the six years 1851-52 to 1856-57, I have been unable to obtain a return showing the expenditure defrayed by the State direct on the Midnapur embankments; but a statement received from the Commissioner of the Division returns the expenditure contributed by the landholders on embankments for the six years at £23,218, or an average of £3869 per annum.

The expenditure on embankments has much increased of late years, as the second table, furnished to me by the Comptroller of Public Works Accounts, Bengal, shows. The records of that office do not go beyond 1857-58, and I have no means of filling in the hiatus from 1851-52 to 1856-57.

In these sixteen years, the total expenditure on the Midnapur embankments aggregated £380,232, or an average of £23,764 per annum, of which £19,187 per annum was the share contributed by Government, and £4577 by the landholders, or an average increase of nine thousand pounds a year over the expenditure incurred for the twenty years ending 1850-51.

Excluding the six years from 1851-52 to 1856-57, the total cost of the Midnapur embankments for thirty-six years, namely, from 1831-32 to 1850-51, and from 1857-58 to 1872-73, has been upwards of two-thirds of a million sterling, or £667,632, or an average of £18,545 per annum. Of this vast sum, more than half a million, or £541,698, equal to an average of £15,047 a year, has been expended by Government; and £125,934, or an average of £3498 a year, by the landholders. The year in which the greatest expenditure occurred was in 1862-63, in which the Government outlay amounted to £30,576, and that of the landholders to £7041. In 1865-66 the Government expenditure was still greater, and amounted to £32,427; but it is probable that the high expenditure of this year is owing more to the fact that Government found it necessary to provide work for the people who were then suffering from famine, than from any other cause. In this year of distress the landholders' outlay fell to £4327, making up the total cost of the embankments to £36,754.

Last year (1873) the Government of Bengal found it necessary to introduce a Bill in the Local Legislature to provide for the better construction, maintenance, and management of embankments and watercourses. The Act places the embankments under the charge of the Collector of the District and an Engineer, with carefully defined powers; provides for the acquisition of lands required, the

compensation to be awarded, the appointment of the cost of embankments between the Government and the *zamindárs*, and the mode of recovery of sums due on this account. The Bill has now passed through the Council, and received the assent of the Viceroy on the 20th December 1873. Schedule D sets forth a list of all the embankments to be brought under the provisions of the Act; and as the Embankment System of Midnapur forms so important a feature of the District, I reproduce the following list of the District Embankments, attached to the Bill, and published in the *Calcutta Gazette*, September 17, 1873 :—

PRINCIPAL EMBANKMENTS OF MIDNAPUR DISTRICT.

(1) RIGHT EMBANKMENT ON THE SILAI RIVER FROM ISNAGAR TO KOLA—a continuous line of embankment, 3 miles 4780 feet, more or less, in length. It commences at a masonry pillar in the village of Isnagar in Bagri *parganá*, and terminates at a masonry pillar in the village of Kolá in the same *parganá*.

(2) RIGHT EMBANKMENT ON THE SILAI RIVER FROM CHHOTA RUPRAM TO NARUA—a continuous embankment, 4 miles 770 feet in length. It commences at a masonry pillar in the village of Chhota Rúprám in Bagri *parganá*, and terminates in the village of Naruá in the same *parganá*.

(3) RIGHT EMBANKMENT ON THE SILAI RIVER, FROM SRIRAMPUR TO GANCHIA—a continuous embankment, 7 miles 2686 feet in length. It commences at the village of Srírámpur in Chandrakoná *parganá*; it terminates in the village of Gánchiá in the same *parganá*.

(4) LEFT EMBANKMENT ON THE SILAI RIVER, FROM KARSI TO KALAKURI—a continuous embankment, 6 miles 5265 feet in length. It commences in the village of Karsi, Bagri *parganá*, and terminates at the village of Kálákuri in the same *parganá*.

(5) LEFT EMBANKMENT ON THE SILAI RIVER, FROM BAGHPATA TO RADHACHAK—a continuous embankment, 20 miles 680 feet in length. It commences in the village of Bághpatá in Chandrakoná *parganá*, and terminates in the village of Rádháchak, Bardá *parganá*.

(6) RIGHT EMBANKMENT ON THE RUPNARAYAN RIVER—a con-

tinuous embankment, 29 miles 2373 feet in length. It commences 57 feet south-east from the Máchnán masonry sluice on the right bank of the Durbáchátí *khal* in the village of Máchnán, Mandalghát *parganá*, and terminates at the zero mile-post on the bank of the tidal canal, Reach I., in the village of Kamalpur, Mahishádal *parganá*.

(7) RIGHT EMBANKMENT ON THE PAIRATUNGI KHAL—a continuous embankment, 4410 feet in length. It commences in the village of Páirátungí, Tamluk *parganá*, from the right embankment on the Rúpnaráyan, and terminates near a temple on the Tamluk road, in the village of Barpádubasán, Tamluk *parganá*.

(8) LEFT EMBANKMENT ON THE PAIRATUNGI KHAL—a continuous line of embankment, 4370 feet in length. It commences in the village of Páirátungí, Tamluk *parganá*, from the right embankment of the Rúpnaráyan, and terminates in the village of Barpádubasán in the same *parganá*.

(9) RIGHT EMBANKMENT ON THE GANGAKHALI KHAL—a continuous embankment, 3 miles 3430 feet in length. It commences in the village of Sudhápur, Tamluk *parganá*, from the right embankment of the Rúpnaráyan, and terminates 675 feet east of the Raghunáthpur masonry sluice in the village of Sayyidpur in the same *parganá*.

(10) LEFT EMBANKMENT ON THE GANGAKHALI KHAL—a continuous embankment, 3 miles 1670 feet in length. It commences in the village of Maisdá, Tamluk *parganá*, from the right embankment of the Rúpnaráyan, and terminates 170 feet north-east of the Raghunáthpur masonry sluice in the village of Raghunáthpur in the same *parganá*.

(11) RIGHT EMBANKMENT ON THE SOADIGHI KHAL—a continuous embankment, 2 miles 3990 feet in length. It commences in the village of Soádighí, Tamluk *parganá*, and terminates in the village of Jasamnáthpur in the same *parganá*.

(12) LEFT EMBANKMENT ON THE SOADIGHI KHAL—a continuous embankment, 2 miles 1690 feet in length. It commences in the village of Soádighí, Tamluk *parganá*, from the right embankment of the Rúpnaráyan, and terminates in the village of Hoglá in the same *parganá*.

(13) RIGHT EMBANKMENT ON THE DURBACHATI KHAL—a continuous embankment, 1 mile 3510 feet in length. It commences 550 feet north-north-east of the Bhudá Factory chimney in the

village of Bhudá, Mandalghát *parganá*, and terminates 57 feet south-east of the Máchnán masonry sluice in the village of Máchnán in the same *parganá*.

(14) MOHANKHALI EMBANKMENT—a circuit embankment, 28 miles 3258 feet in length. It commences at a masonry pillar in the village of Kultigrí, where the Mohankháli runs into the Rúp-naráyan river, and passing along the right bank of the Mohankháli, through the villages of Jalighanasyám, Sitápur, and Manu, to Basantpur, where the Mohankháli and Durbácháti rivers bifurcate, thence skirting the left bank of the Durbácháti river, it passes through the villages of Sháhpur, Pasarpur, and Barmogriá, to Kachará; thence skirting the right bank of the Rúp-naráyan, it passes through the villages of Dudhkaurá and Bághchiná, and terminates at the same masonry pillar which forms the starting-point.

(15) PANA CIRCUIT EMBANKMENT—a circuit embankment, 9 miles 3640 feet in length. It commences at a masonry pillar on the left bank of the Silái river, near a temple in the village of Bargobind, Bardá *parganá*. It passes through the villages of Baramdí and Ránfbázár on the left bank of the Silái river, and then along the right bank of the Kántá Khál, through the villages of Bhagádaú, Parná, Baramdíjhil, Tablí, and Dharpur, and terminates at the same pillar which forms the starting-point.

(16) GHATAL EMBANKMENT—a circuit embankment, 10 miles 1850 feet in length. It commences at a masonry pillar on the left bank of the Silái river at its bifurcation with the Argará river, and passing along the left bank of the Silái river, and through the villages of Srírámpur, Básudebpur, and Sinhpur, it skirts the right bank of the Argará river, passes through the villages of Rámchandrapur, Raghunáthchak, and others, and terminates at the same pillar which forms the starting-point.

(17) KHASBAR EMBANKMENT—a circuit embankment, 5 miles 5240 feet in length. It commences at a masonry pillar at the point of bifurcation of the Jhumí and Amadá *kháls*, in the village of Lálchak, Bardá *parganá*, and passing along the right bank of the Jhumí *khál*, through the villages of Párbatichak, Prasádchak, and Jaibágh, and thence along the left bank of the Amadá *khál*, through the villages of Khasbár, Sawai, and Lálchak, till it terminates at the same pillar which forms the starting-point.

(18) CHITWA EMBANKMENT—a circuit embankment, 45 miles 1420 feet in length. It commences at a masonry pillar at the

junction of the Rúpnráyan river and Mohankháli *khál* in the village of Mahishghátá, Khárijá Mandalghát *parganá*, and passing along the left bank of the Mohankháli *khál*, through the villages of Dakshinbar, Gauríchak, Gobindnagar, Basantpur, thence along the left bank of the Kásái river, through the villages of Kolá, Mahespur, Gokulnagar, Suratpur, Raghunáthpur, and Konnagar, to the junction of the Silái and Rúpnráyan rivers at Pratáppur, and thence along the right bank of the Rúpnráyan river, through the villages of Harishpur, Jalkonárám, Ráníchak, and Gopíganj, terminating at the same pillar which forms the starting-point.

(19) DUSASPUR EMBANKMENT—a circuit embankment, 18 miles 2350 feet in length. It commences from the right bank of the Kásái river, 700 feet from the Dusáspur sluice in the village of Dusáspur, Chitwá *parganá*, and passing along the right bank of the Kásái river, through the villages of Nabín Básudebpur, Kunjpur, Mahespur, Telondí, and Brikabhánupur; thence passing along the left bank of the Patuá *khál*, through the villages of Fathipur, Gadáipur, and Dhámkhólá, it terminates in the village of Kirtibáspur, Chitwá *parganá*.

(20) NARAJOL EMBANKMENT—an embankment 7 miles 1735 feet in length. It commences from the left bank of the Kásái river, in the village of Samat, Chitwá *parganá*, and passing along the left bank of the Kásái river to the village of Madanmohanpur, and thence along the right bank of the Silái river, through the village of Rámdebpur, it terminates in the village of Chandfkháli in the same *parganá*.

(21) BRINDABANCHAK EMBANKMENT—an embankment 2 miles 800 feet in length. It commences in the village of Brindábanchak, Khárijá Mandalghát *parganá*, and running along the right bank of the Durbáchátí *khál*, terminates in the same village whence it started.

(22) BIRKUL EMBANKMENT—a continuous line of embankment, 41 miles 155 feet in length. It commences in the village of Khádálgobrá, Birkul *parganá*, and running generally parallel with the coast line of the Bay of Bengal, terminates on the Contai (Kánthí) and Kedgerree (Khejirí) road, on the right bank of the Rasúlpur river in the village of Syámchak, Keorámál *parganá*.

(23) KEORAMAL AND MAJNAMUTA EMBANKMENT—a continuous line of embankment, 30 miles in length. It commences on the Contai (Kánthí) and Kedgerree (Khejirí) road, on the right bank

of the Rasúlpur river in the village of Syámchak, Keorámal *parganá*, and running along the right bank of the Rasúlpur river as far as the Contai (Kánthí) and Tamluk road, and thence along the right bank of the Sarpái river, terminates in the village of Atlágarí, Majnámutá *parganá*.

(24) SANBARIA EMBANKMENT—a circuit embankment on the right bank of the Rasúlpur river, 2 miles 4868 feet in length. It commences and terminates at a masonry pillar in the village of Sanbáriá, Báhirimutá *parganá*.

(25) MAJNAMUTA AND BHOGRAI EMBANKMENT—a continuous line of embankment, 30 miles in length. It commences in the village of Atlágarí, Majnámutá *parganá*, and running along the left bank of the Sarpái river as far as the village of Kesurkund, on the Contai (Kánthí) and Midnapur road, and thence in a northerly direction to Chaumukh on the Bágdá river, and thence along the right bank of the Bálighái *khál* to the east of the Dhubdá *jhil*, terminates on a sand ridge in the village of Mádhbapur, Bhográi *parganá*.

(26) PICHABANI EMBANKMENT—a continuous line of embankment, 17½ miles in length. It commences at the great sea dyke east of the Pichábaní sluice on the left bank of the Pichábaní *khál*, and running along the said bank as far as a masonry pillar in the village of Mádhbapur, Bhográi *parganá*, and thence along the right bank, terminates at the great sea dyke west of the Pichábaní sluice.

(27) ASTHICHAK EMBANKMENT—a circuit embankment on the right bank of the Bágdá river, 3 miles 2528 feet in length. It commences and terminates at a masonry pillar in the village of Asthichak, Pahárpur *parganá*.

(28) SUJAMUTA AND JALAMUTA EMBANKMENT—a continuous line of embankment, 95 miles in length. It commences in the village of Rámchak, Sujámutá, and running along the left bank of the Ikhtíárpur *khál* to its junction with the Mádákháíl *khál*, thence along the left bank of the Mádákháíl *khál* to the Chauddachulí Inspection Bungalow at the confluence of the Rasúlpur river and the Kunjpur or Thálpátí *khál*, thence running along the left bank of the Kunjpur or Thálpátí *khál* to its embouchure in the Bay of Bengal, thence running parallel to the coast line as far as the mouth of the river Haldí, thence following the right bank of this river as far as the junction of the Káliághái and Kásái rivers, and lastly,

running along the right bank of the Káliaghái river, and terminating in the village of Nilkanthpur, Jalámutá *parganá*.

(29) KHARAN EMBANKMENT—a continuous line of embankment, 5 miles in length, along the right bank of the Káliaghái river. It commences at a masonry pillar in the village of Kharan, Patáspur *parganá*, and terminates at another masonry pillar in the same village.

(30) NARUAMUTA EMBANKMENT—a circuit embankment, 34 miles 1000 feet in length. It commences near the Barju *ghát*, or landing place in the village of Barju, Naruámutá *parganá*, and after running along the right bank of the Mádákháíl *khál*, the left bank of the Bágdá river, and the right bank of the Chakhabání *khál*, terminates at the point where it starts from. This embankment passes through the villages of Barju, Simulbárl, Dismilá, Khámgará, Idalpur, Kálurátharl, Lischintar, Ulálbárl, Koniábárl, Bhástágará, Khálá Kálkádarl, Sundarpur, Malikpur, Ballabhpur, Sukákhólá, Udaipur, Gopálpur, Bará Adápur, Támlápurá, Chakbátá, Kalsái, Kulbárlá, Chakmáthurl, Chakhábanl, Bhairabdárl, South Chándó, Mangalpur, Dakshíndárl, Pratápdíghl, Bámunbasán, Sítádíghl, Krishnanagar, Pánisurl, Sardábar, Mathurá, Chakrasál, Khasurá, Mangalchak, Tonábilá, Arjun-nagar, Puruliá, Mahesdá, Máldá, Barjl; and also through *parganá*s Naruámutá, Kismat Patáspur, Kismat Dántun, Pratábhán, Patáspur, and Bháitgarh.

(31) MADAKHALI AND UDBADAL EMBANKMENT—a circuit embankment, 11 miles 1541 feet in length. It commences at a masonry pillar at the junction of the Mádákháíl and Udbádal *kháls* in the village of Naturiá, Naruámutá *parganá*; and after passing through the villages of Udbádal, Chámpáinagar, Konásdíghl, Nathará, Khátmárl, Itábárlá, Nandíghl, Mánikjor, Hasgoriá, Básudebbárlá, Pátarbará, it terminates at the same pillar which forms the starting-point.

(32) NARUAMUTA AND KOAL EMBANKMENT—a circuit embankment, 11 miles 1525 feet in length, lying between the Ikhtiárpur, Mádákháíl, and Udbádal *kháls*. It commences from a masonry pillar at the junction of the Mádákháíl and Ikhtiárpur *kháls*, in the village of Raghunáthchak, Naruámutá *parganá*, and running along the left bank of the Mádákháíl *khál*, the left bank of the Udbádal *khál*, and the right bank of the Ikhtiárpur *khál*, it terminates at the same pillar which forms the starting-point. This embankment passes through the villages of Udbádal, Patná, Dámodárl, Padu-

tardí, South Biáddá, Ichhápur, Pánchghariá, Bhupatinagar, Raghunáthchak, Nandichak, Khorinet, Gobindpur, Jagamohan, Chámpáinagar, Kanjadápur, and the *parganá* of Naruámutá.

(33) ERANCH EMBANKMENT—a continuous line of embankment, 3 miles 3255 feet in length. It commences in the village of Rámchak, Sujámutá *parganá*, and, running along the right bank of the Ikhtiárpur *khál*, terminates in the village of Rádhápur, Eranch *parganá*.

(34) PATASPUR EMBANKMENT—a circuit embankment, 7 miles 2735 feet in length, between the Káliághái river and the Bágui *khál*. It commences in the village of Doropatná, Patáspur *parganá*, at the junction of the Káliághái river with the Bágui *khál*, and, passing through the villages of Gokulpur, Doropatná, and Golághát, finally terminates at its original starting-point.

(35) KASBA HIJILI EMBANKMENT—a circuit embankment, 20 miles in length. It commences from a masonry pillar in the village of Gumgarh, Kasbá Hijili *parganá*, on the south side of the junction of the Thálpátí *khál* with the Rasúlpur river. The embankment first runs along the left bank of the Rasúlpur river to its confluence with the sea, then follows the coast line to the embouchure of the Thálpátí *khál* in the Bay of Bengal, and thence runs along the south bank of the Thálpátí *khál* till it terminates at the same masonry pillar which forms the starting-point. It passes through the villages of Gorábar, Debíchak, Dándchak, Katká, Syámpur, Bághá, Padurbáriá, Nenápátá, Mahendranagar, Pánchbáriá, Osilchak, Honábáriá, Kalágáchhiá, Orukbáriá, Sáhibchak, Bámunchak, Barabárf, Phulbárf, and Málichak.

(36) KASAI AND HALDI EMBANKMENT—a continuous line of embankment, 60 miles 4110 feet in length. It commences in the village of Bargodá, Tamruk *parganá*, on the left bank of the Kásái river, and runs along the left bank of the Kásái and Haldí rivers to the confluence of the latter with the river Húglí, and thence along the right bank of the Húglí and Rúpnaráyan rivers, till it terminates at a masonry pillar in the village of Bánká about a quarter of a mile north of a Hindu temple, on the left bank of the Bánká *khál*.

(37) KALIAGHAI AND KASAI EMBANKMENT—a circuit embankment, 12 miles 2550 feet in length, situated between the Káliághái and Kásái rivers. It starts from the junction of these rivers, and, running along the left bank of the Káliághái river and the right

bank of the Kásái river, terminates at the same point as that from which it starts. It passes through the villages of Parso, Nonákháí, Lochanpur, Narkuldí, Sunábhái, Asnán, Chandsbáriá, Máchodal, Kholákháí, Kalkádáí, Páncpukhuriá, Krishnachak, and Salugariá, all in Tamluk *parganá*.

These thirty-seven lines of embankment cover a length of 601½ miles, and are all brought under Government management by the provisions of the Bengal Embankment Bill, which this year passed the Bengal Legislative Council (December 1873).

FOREIGN AND ABSENTEE PROPRIETORS.—No European landholders appear in Midnapur as registered proprietors on the Government rent-roll. There are European *patnidárs* and great leaseholders, such as Messrs. Watson & Company, but they do not possess the *zamindári* or proprietary right in the lands they hold. The Collector in 1870 returned the estimated number of Muhammadan proprietors at 148, out of a total of 6358, paying an approximate Government revenue of £3199, out of a total land revenue for the whole District of £202,070. According to these figures, the Musalmáns do not hold anything like a proportionate share in the land to the Hindus. The Census of 1872 returned the Muhammadans of Midnapur at 6·2 per cent. of the District population; while, according to the Collector's report of 1871, the Musalmán landlords only number 2·3 per cent. of the landed proprietors, and their share of the Government land revenue is only 1·5 per cent. A considerable portion of the District, however, is owned by wealthy Hindu absentee landholders, the principal of whom are the Mahárájá of Bardwán, Bábu Hírálál Sil & Brothers of Calcutta, Bábu Ghanes-yám Mukharjí of Calcutta, etc.

ROADS AND MEANS OF COMMUNICATION.—In 1871 there were seventeen lines of road in Midnapur District, of which six were under the Public Works Department, and eleven under local management. The six Imperial lines of road are as follow:—(1) Road from Midnapur to Ulubáriá, 50·4 miles in length; annual cost of maintenance and repairs, £2300. This is a section of the Great Trunk Road from Calcutta, and forms the highway for pilgrims from Bengal and Northern India to the great temple of Jagannáth in the Purí District of Orissa. The bridges on the road were constructed at the expense of Rájá Sukhmai, who bequeathed a sum of £15,000 for the purpose of facilitating the pilgrim route to Jagannáth. Only 36 miles of the road from Midnapur to Ulu-

báriá are actually within the limits of Midnapur, which District it leaves at Kailághát, on the Rúpnaráyan river, whence it passes through Húglí District to Ulubáriá on the Húglí river, and is continued on the opposite bank through the 24 Parganáas to Calcutta, making a total length of 72 miles from Midnapur city. (2) Road from Midnapur to Rájgarh, and thence on to Jaleswar, in Balasor District; length, about 50 miles; annual cost of maintenance and repairs, £1360. This is the second portion of the great Jagannáth road, and, like the first section, the cost of bridging it was met from the legacy bequeathed by Rájá Sukhmai. (3) Road from Midnapur to Bánkurá, in Bánkurá District; length throughout, 65 miles; annual cost of maintenance and repairs, £960. Of this road only 32 miles, or about one-half, are within Midnapur District. A few miles north of Garhbetá Subdivisional Station it leaves Midnapur, and enters Bánkurá District. The road is an important one; it runs over a hard dry country all the way, and can be maintained at a small expense. (4) Road from Midnapur to Kamarará; length, 45 miles; annual cost of maintenance, £200. (5) Road from Pánchkurá to Tamluk; length, 18 miles; annual cost of maintenance and repairs, £200. This line branches off from the Midnapur and Ulubáriá road at Pánchkurá. Mr. Bayley's Report states that it runs through very low country, and in 1852 it was described as in a very bad state during the rainy season, at which time also the navigation of the Rúpnaráyan, at the point where the road crosses that river, was rendered perilous. (6) From Bálighái to Jaleswar, in Balasor District; length, 24 miles. This is an unmetalled road, and only recently transferred to the Midnapur Division of the Public Works Department, from the Northern Cattack Division. Total length of Imperial roads, 252 miles; annual cost of maintenance and repairs, £5020. It must be remembered, however, that the whole length of these roads does not lie within Midnapur District. The Public Works Department circles are not always conterminous with the geographical limits of Districts.

The eleven principal roads under local management are the following:—(1) Road from Beldá to Contai (Kánthí). This line branches off from the Great Trunk Road to Orissa at Beldá, in Khátnagar Fiscal Division; length, 35 miles; annual cost of maintenance and repairs, £88, 18s. od. This road was originally constructed as a post road only, but was subsequently raised and

widened. (2) Road from Garhbetá Subdivisional Station to Rámgarh; 26 miles in length; annual cost of maintenance and repairs, £55. (3) Road from Lodhá to Bhámpur; 31 miles in length; annual cost of maintenance and repairs, £151, 6s. od. (4) Road from Daijurí to Purbáti; 8 miles in length; annual cost of maintenance and repairs, £48, 12s. od. (5) Road from Chandrakoná to Amlájurá; 16 miles in length; annual cost of maintenance and repairs, £72, 16s. od. (6) Road from Chandrakoná to Goáltor; 23 miles in length; annual cost of maintenance and repairs, £105, 14s. od. (7) Road from Midnapur to Khirpái, in Chandrakoná Fiscal Division, and thence on to Bardwán; length in Midnapur District, 21 miles; annual cost of maintenance and repairs, £94, 16s. od. This is one of the most important local roads in the District, and is being metalled. (8) Road from Contai (Kánthi) to Tamluk; 18 miles in length; annual cost of maintenance and repairs, £56, 16s. od. (9) A second line of road from Contai to Tamluk, 20 miles in length; annual cost of maintenance and repairs, £135, 18s. od. (10) Road from Contai to Rámnagar, 15 miles in length; annual cost of maintenance and repairs, £58. (11) Road from Kharagpur to Kasiári, 17 miles in length; annual cost of maintenance and repairs, £67, 16s. od. Length of the above local roads, 230 miles; annual cost of maintenance and repairs, £935, 12s. od. Grand total of Imperial and the above local roads, 482 miles; annual cost of maintenance and repairs, £5955, 12s. od.

Besides the foregoing, Mr. Bayley, in his *ms. Report* (1852), mentions two other roads which are not specified in the Collector's Return to me in 1871. These are: (1) a road from Contai Subdivisional Station *via* Khejiri (Kedgerie) to Kukráhátí, a distance of 48 miles, crossing the Haldí and Rasúlpur rivers; and (2) a road from Contai to Bírkul *via* Rámnagar. Mr. Bayley states that this used to be a good road, but that it was much injured at the Bírkul end, near the coast, by the storm and inundation of 1850. In 1852 it was serviceable only as far as Daulí, half-way between Contai and Chándpur.

All the roads, except those in the Jungle Mahals, are bridged at the smaller rivers, and have ferries at the larger ones. Fifty new bridges and culverts, chiefly for the roads in the Jungle Mahals, were in course of construction in 1872. The principal ferries are on the Kásái, Rúpnaráyan, Rasúlpur, and Haldí rivers. Ferries are also maintained on the Subanrekhá river near Mahápál, bordering on the

western jungles, and on the Dolang Khál. No large markets have lately sprung up along the principal routes of traffic. Besides the roads and large rivers, the Midnapur High Level Canal furnishes a direct means of communication with Calcutta. It is intended both for navigation and irrigation, and when completed, which it is anticipated will be during the present year (1873), will be navigable throughout its entire length, from the Húglí river at Ulubárá at Midnapur town. There are no railways within Midnapur District.

MINERALS.—No mines are worked in Midnapur, but several stone quarries are situated in the vicinity of the station. These quarries are worked by the Public Works Department, and cover an area of about a square mile. The stone is that known as rock laterite, close-grained, hard and durable, and excellent of its kind. It is generally met with at a depth varying from two to four feet; but an inferior description of stone is found on the surface in different parts of the District. Rubble laterite sells at about 7s. per hundred cubic feet; rough-dressed stone at about £1, 3s. od., and ashlar at about £1, 12s. od. per hundred cubic feet. Gold dust is found in minute quantities in the river-beds, and the Census Report returns the number of gold-washers in Midnapur District at 21. Salt is plentiful in the tidal plains on the south and east of the District. The other mineral products are iron and soap-stone. No precious stones are found.

MANUFACTURES.—Excellent mats are manufactured at Raghunáthbárá, Kásijorá, and Nárájol. Brass and copper utensils, such as cups, plates, cooking pots, etc., for the domestic use of Hindus, are manufactured in the town of Midnapur. Tasar silk is manufactured in the District on a small scale by the people. The processes are similar to those followed in the other Districts of Lower Bengal. No steps have been taken to improve the ancient manufactures, or to introduce new ones, and the social position of the manufacturing classes is low. The Collector in 1871 states that they scarcely differ from the ordinary day-labourers, each family following the hereditary profession assigned to the caste to which it belongs. The manufacture of indigo and silk is chiefly conducted by means of hired labour. The principal indigo and silk factories belong to Messrs. Robert Watson & Co.; the scale of wages varying from 1½d. to 3¼d. a day. Sometimes the silk manufacture is carried on by piece-work; that is to say, by paying a fixed sum for every pound of silk prepared from cocoons. The system of making

advances for manufacturing purposes exists only among the silk and indigo workers. The factory pays a small sum to the labourers, and the latter engage to supply a certain quantity of silk or indigo at a fixed rate to the factory. As soon as the labourer has supplied silk or indigo of equal value to the amount advanced to him, a fresh advance is made, and so on.

The following table shows the number of skilled workers, mechanics, and artisans in Midnapur, according to the Census of 1872, under their respective trades, making a total of 50,211 men :—

MANUFACTURING CLASSES AND ARTISANS OF MIDNAPUR
DISTRICT, 1872.

Indigo manufac- turers, 6	Glassmaker, 1	Gilders, 4
Brick-masons, (<i>Rājīstris</i>), 1394	Combmakers, 74	Shell-carvers, 388
Brickmakers, 79	Matmakers, 618	Cane-workers, 41
Sawyers, 404	Basketmakers, 2122	Makers of looms, 2
Carpenters, 1621	Whipmaker, 1	Cotton-weavers, 26,276
Thatchers, 231	Toy-makers, 5	Weavers in wool, 34
Boat-builders, 173	Hookah - pipe makers, 74	Weavers in coir, 16
Ship-carpenters, 5	Grindstone-makers, 207	Umbrella-makers, 2
Blacksmiths, 3235	Musical instrument makers, 8	Gunnybag-makers, 192
Coppersmiths, 2927	Makers of lacquer- ed ware, 87	Net-makers, 44
Tinmen, 2	Makers of garlands, 275	Blanket-makers, 879
Goldsmiths, 2883	Carvers, 2	Shoemakers, 886
Gold-washers, 21		Printer, 1
Potters, 4956		Bookbinders (<i>dasītrīs</i>), 35

THE SALT MANUFACTURE was, until within recent years, a Government monopoly, alike under the English and the Musalmán administration. From the conquest of Hijili by Táj Khán Masnad Alí in 1505 A.D., this part of the country has been held under the direct management of the State, so as to afford facilities for the manufacture of salt. In 1852 it was estimated that three-fourths of the cultivators in Hijili stood in the double capacity of salt makers and cultivators. The salt lands are those portions which are exposed to the overflowing of the tides, usually called *chars*. They are strongly impregnated with saline particles, and are subdivided into *khálaris*, or working places. Mr. Grant's Report on the Revenues of Bengal, dated April 1786, and published in the Fifth Report of the Parliamentary Select Committee on the affairs of the East India Company (London, 1812 ; Madras reprint, 1866), states that each *khálarí*, on an average, yielded 233 maunds (about

170½ hundredweights) of salt, requiring the labour of seven *malangis*, or salt manufacturers, who by an easy process of filtration, and by boiling the brine with firewood collected from the neighbouring jungles, completed their operations between November and June before the setting in of the rains. The savings from these six months' wages, which were fixed by the Government with the *samindárs* at the rate of £2, 4s. od. for every hundred maunds of salt manufactured, enabled the salt-workers to retire to their homes for the remainder of the season to cultivate their arable (*madhuri*) lands, which they held either rent free, or under favourable terms, under the denomination of *chákran* or service lands, as a subsistence for the rest of the year. The number of *khálaris* in Midnapur under the Muhammadan rule was estimated at about four thousand; and the Crown rent, at the rate of about £1, 2s. od. for each, yielded a revenue of about £4356. The nominal cost price of the salt at Húglí was £6 for every hundred maunds, and the difference between this price and the prime cost fell into the hands of ministers, favourite servants or merchants, who transported the salt to distant markets on their own account, and made large profits by this authorized but oppressive monopoly. The principal monopolist had the title of Fakhar-ul-tujjar (pride-of-merchants) or Málik-ul-tujjar (king-of-merchants). The salt was sold to the people at an average price of Rs. 2 a maund, or 5s. 5d. a cwt. (£20 per 100 maunds). This was the price during the first half of the seventeenth century. After the events of 1757, which established the British power in Bengal, the greater share of this lucrative trade fell into the hands of the English; and Mr. J. Grant; in his Report of 1786, estimated the quantity of salt annually manufactured in Hijili at 8½ lákhs of maunds, or about 31,116 tons.

In the year 1781 the East India Company established a Salt Department, and deprived the *samindárs* of the power of manufacturing salt on their estates. In return for the loss of profits, the *samindárs* received a certain fixed allowance (*málikánd*), and a further allowance (*musháhará*) upon condition of their rendering aid in the manufacture of salt. They also obtained a grant of *kháldri* rents for the lands of which they were dispossessed when Government took upon itself the monopoly of salt manufacture. This monopoly continued in the hands of Government till about 1861, when the State relinquished the manufacture, leaving it to private parties, subject to the payment of a Salt Duty, now amounting to Rs. 3. 4. 0. a

maund, in Bengal, or 8s. 10d. a cwt. (1873). The manufacture, however, has greatly declined of late years, and is in the hands of a few contractors, who pay a Government duty according to the amount manufactured by them. The introduction of Liverpool salt, brought out at very low rates and often as ballast to Calcutta, has nearly driven the native manufacture out of the market. The Collector states that the abolition of the Government salt monopoly has seriously affected the material prosperity of the inhabitants of the southern portion of the District, who formerly lived by the manufacture. See detailed account of the manufacture of seaboard salt in my 'Orissa' (Index at end of vol. ii.).

TRADE AND COMMERCE.—The principal articles of trade in Midnapur District are rice, indigo, sugar, sugar-candy, hides, mats, silk cloth, and *tasar*. The chief trading towns and villages are the town of Midnapur, Bálighái, Páñchkurá, Tamluk, Chandrakoná, Kukráhái, Ghátál, Kásiárl, and Nawádá. The commerce of the District is chiefly carried on by means of permanent markets, but a considerable local trade also takes place at fairs and religious gatherings. The principal of these religious-trading fairs are:—(1) One held at a place called Tulsíchaurá, on the bank of the Káli-ghái river, in honour of a celebrated spiritual preceptor named Gokulánand Goswámí; (2) at Gopballabhpur, in *parganá* Nayágáon; (3) at Mahishádal, on the occasion of the *Rath* festival of Jagannáth, in the month of June; (4) at Egrá, in February or March, in honour of Sambhunáth (a name of Siva), lasts for three days; (5) at Andhirl, in the months of November or December, in honour of Gangánand Rái, an image of Siva; (6) at Jháripur, in honour of Sambhunáth or Siva, and which lasts for eight days, in the month of April; (7) at Kutabpur, in honour of the goddess Brahmání, in April or May, and which lasts for eight days; (8) at Gopballabhpur a fair is held in honour of Chaitanya, an image of whom is here worshipped with much pomp. A wealthy Rájá of the District bestowed considerable landed estates for the worship of the image, and a large establishment of priests is maintained for the performance of the ceremonies. Besides these fairs, three or four religious-trading gatherings are held every year in Bagrí *parganá*, and are frequented by five or six thousand people for the purpose of worshipping an image of Krishna.

EXPORTS AND IMPORTS.—The chief articles exported from Midnapur District are paddy, silk, and sugar; the principal imports

being cotton-cloth and cotton-twist of European manufacture. The Collector reports that the value of the exports and imports is about equal.

CAPITAL AND INTEREST.—Besides the regular money-lenders and village shopkeepers who combine rice-dealing with usury, the landed proprietors also lay out their money at interest. In small loan transactions, where the borrower pawns some article, such as ornaments or household utensils, in security for the amount borrowed, the Collector states that the usual rate of interest is 24 per cent. per annum. In large loan transactions, where the lender is secured by a mortgage upon moveable property, the rate usually charged is 18 per cent. per annum; in similar transactions, secured by a mortgage upon immoveable property such as houses or lands, the rate varies from 12 to 18 per cent. In petty agricultural advances to the cultivators upon a current account, interest is charged at the rate of from 25 to 50 per cent. It is not customary in Midnapur to make advances to the husbandmen upon the personal security of the borrower, with a lien upon the crops. The Collector states that 4 per cent. per annum would be considered a fair return for money invested in the purchase of an estate. No large native banking establishments exist in Midnapur District.

IMPORTED CAPITAL.—Messrs. Robert Watson & Company, who hold large estates in the northern part of the District, are the only Europeans carrying on manufactures by means of imported capital. They have large indigo and silk factories, but the Collector states that he has been unable to obtain the history or statistics of their undertaking.

INSTITUTIONS.—A public Library was established in the town of Midnapur, under the auspices of Mr. H. V. Bayley, Collector of the District, in 1852. It is supported by subscriptions from the residents, and by the proceeds derived from a tank attached to it, which is let in farm for the sum of £12, 12s. per annum. The building is neat, with a small garden on one side and the tank on the other. In 1871 there were 67 subscribers, the aggregate payments amounting to £3, 16s. od. per month. The number of volumes in the Library had increased from 1870 in 1853, to 3128 at the end of 1871, besides periodicals. No newspaper is published in the District; but there is a printing-press established in the town of Midnapur, under the management of the American Baptist missionaries. It prints in both the Bengali and English languages. The medical

and educational institutions will be alluded to in a subsequent section of this Statistical Account.

INCOME OF THE DISTRICT.—The Collector, in 1871, returned the estimated income of Midnapur District, as calculated for the purposes of the Income Tax Act of 1870-71,—that is to say, the total of all incomes over £50 a year,—at about £850,000. This sum would yield an income tax of £26,562 at the then rate of $3\frac{1}{4}$ th per cent. The net amount of tax actually realized in Midnapur District in 1870-71 was £25,544. In the following year, 1871-72, the rate of the tax was reduced to $1\frac{3}{4}$ th per cent., and the minimum of incomes liable to assessment raised to £75 per annum. The net amount of income tax realized in that year was £5649, 10s. od.

REVENUE AND EXPENDITURE.—The numerous changes which have taken place in the jurisdiction of the District since it was constituted, render it impossible to present a perfectly exact comparison of the revenue and expenditure at different periods. In 1790, the earliest year of which records exist, the total net revenue of the District, exclusive of Hijili, which then formed a separate Collectorship, was returned at £160,316, and the total civil expenditure at £33,263. In 1821-22, the total net revenue of the District (still excluding Hijili) was returned at £160,846, and the total civil expenditure at £36,681. In 1839-40, shortly after the addition of Hijili, with its land revenue of about £35,193, to Midnapur District, the total net revenue was £219,472, and the expenditure £34,246. In 1850-51, after transfers, the revenue amounted to £194,887, and the expenditure to £28,879; in 1870-71 the total net revenue amounted to £262,578, and the expenditure to £53,777. During the period of 80 years, therefore, so far as can be ascertained, the results stand thus. In 1790, revenue of Midnapur, £160,316; of Hijili, £35,193; total, £195,509. In 1870, 'current land revenue demand' of the united District, £202,070; total net revenue of united District, £262,578.

Since the addition of Hijili, the transfers to and from the District have not been very important, excepting some *pargandás* in the south-west of the District which have been separated from Midnapur and annexed to the Orissa District of Balasor. I shall, therefore, confine my efforts to exhibit the comparative revenue and expenditure to the period *subsequent* to the amalgamation of Hijili, when the District had settled down pretty much to its present dimensions. The following three tables show the balance-sheet of Midnapur

[*Sentence continued at page 157.*

BALANCE-SHEET OF MIDNAPUR DISTRICT FOR THE YEAR 1839-40.

REVENUE.		EXPENDITURE.	
Land Revenue,	£197,017 4 0	Revenue charges general,	£19,204 2 0
Excise (exclusive of opium),	4,153 4 0	Judicial charges general,	12,293 6 0
Profit and Loss,	4,859 6 0	Profit and Loss,	1,968 10 0
Stamps,	6,413 12 0	Stamps,	172 18 0
Police,	2,197 4 0	Pensions,	607 14 0
Interest on arrears of Revenue,	4,343 8 0		
Opium,	489 0 0		
Total Net Revenue,	£219,472 18 0	Total Net Expenditure,	£34,246 10 0

BALANCE-SHEET OF MIDNAPUR DISTRICT FOR THE YEAR 1850-51.

REVENUE.		EXPENDITURE.	
Land Revenue,	£179,565 10 0	Revenue charges general,	£5,216 0 0
Excise (including opium),	7,005 4 0	Excise,	1,585 12 0
Profit and Loss,	730 12 0	Profit and Loss,	479 18 0
Stamps,	5,142 14 0	Judicial charges general,	19,049 2 0
Police,	2,265 8 0	Education,	591 14 0
Education,	178 6 0	Pensions,	1,202 12 0
		Charges general of the General Department, etc.,	754 6 0
Total Net Revenue,	£194,887 14 0	Total Net Expenditure,	£28,879 4 0

BALANCE-SHEET OF MIDNAPUR DISTRICT FOR THE YEAR 1870-71.

REVENUE.		EXPENDITURE.	
Land Revenue ('current collections'), .	£198,272 16 0	Land Revenue, .	£9,083 6 0
Stamps, .	15,553 16 0	Stamps, .	3 16 0
Excise, .	12,637 8 0	Excise, .	681 15 0
Education, .	667 18 0	Educational (including Inspector's Salary and Establishment), .	7,743 0 0
Police, .	350 2 0	Police, .	13,617 18 0
Post Office, .	1,479 7 0	Post Office, .	2,427 10 0
Income Tax, .	25,544 6 0	Income Tax, .	1,324 1 0
Civil Court, .	236 8 0	Civil Court, .	8,372 18 0
Criminal Court, .	1,848 11 0	Criminal Court, .	926 18 0
Pound Fees, .	385 17 0	Pound, .	303 5 0
Ferry Fund, .	2,067 19 0	Ferry, .	95 16 0
Zamindári dák, .	1,280 8 0	Zamindári dák, .	1,334 1 0
Medical, .	3 15 0	Medical, .	1,196 12 0
Profits from Jai Manufacture, .	256 9 0	Jail, .	4,921 2 0
Registration, .	1,395 4 0	Registration, .	574 10 0
Town Tax, .	253 14 0	Town Tax, .	234 9 0
Miscellaneous, .	345 0 0	District Share of Commissioner's Salary, .	760 0 0
		Miscellaneous, .	176 16 0
Total Net Revenue, .	£262,578 18 0	Total Net Expenditure, .	£53,777 13 0

LAND REVENUE; SPLITTING UP OF ESTATES. 157

Sentence continued from page 154.]

District for the years 1839-40, 1850-51, and 1870-71. The figures, however, in the first two must be taken as only approximate estimates, as they disclose omissions on both sides of the account.

In the third return, I have taken the land revenue from a special return compiled for me by the Board of Revenue, showing the 'current collections' for the year. The 'current demand' amounted to £202,070. The figures under the heads of Police, Jails, Income Tax, and Post Office I have taken from the respective Departmental Reports for 1870-71. The remaining figures are furnished to me by the Collector.

THE LAND REVENUE is now nearly treble what it was in 1790. In the latter year it amounted to £80,791, exclusive of Hijili, which then formed a separate District; in 1870-71 the current land revenue demand was £202,070. Subdivision of estates has gone on rapidly under British rule, and the number of individual landed proprietors is now more than six times what it was in 1790. In the latter year, moreover, the District was somewhat smaller than in 1870. It then contained a total of 999 estates, held by 1043 registered proprietors or coparceners, paying a total land revenue to Government of £80,791, 14s. od.; average land revenue paid by each estate, £80, 17s. 6d.; average amount paid by each proprietor or coparcener, £77, 9s. od. In 1800, the number of separate estates had increased to 1838, and the registered proprietors or coparceners to 1907. Unfortunately, I cannot state the rental for this year, as it is not entered in the Quinquennial Register of the District for 1800. In 1850, the number of separate estates on the District rent-roll had further increased to 2561, and the registered proprietors and coparceners to 4735, paying a total land revenue of £227,285, equal to an average payment of £88, 15s. od. by each estate, or £48, os. od. by each individual proprietor or coparcener. In the year 1870-71, the number of estates amounted to 2808, and the registered proprietors and coparceners to 6358. The total land revenue demand, as returned to me by the Board of Revenue, for that year amounted to £202,070, and the 'current collections' to £198,272. This gives an average land revenue demand of £71, 19s. 2d. from each estate, and of £31, 15s. 7d. from each proprietor or coparcener. The Collector states that this general average fairly represents the state of landed property. It must be remembered, however, that the figures are exclusive of Chandrakoná and

Ghátál Fiscal Divisions, which, although now (1873) forming a portion of Midnapur District, were only transferred to it from Húglí in 1872.

LAND SETTLEMENT.—Midnapur District is partly held under the permanent, and partly under the temporarily settled system; and I am indebted to the Collector for a special report on the subject, drawn up in reply to a set of inquiries which I issued in 1873. From it, and its enclosures, I derive the following facts. The temporarily settled estates are all due to exceptional circumstances. They extend over about one-eighth of the entire area of the District, and consist of four large parent estates comprising twenty-three entire *parganá*s, principally situated in the southern and eastern parts of the District, besides some small detached areas scattered here and there. The four large parent estates are Jalámutá, Majnámutá, Patáspur, and Kalyánpur. At the time of the Permanent Settlement in 1793, the proprietors of the two estates of Jalámutá and Majnámutá refused to engage for their lands on any but temporary conditions, on account of their liability to inundations of salt water. The Settlement Officer, who is now engaged in forming a new settlement for the temporarily settled lands, states: 'In two such enormous estates it is quite possible that the calamities of one single year, and the consequent loss of crops, would put it out of their power to pay the Government demand, and their estates would be sold. Even with the present almost perfect system of embankments, affording protection not only from the sea, but from the innumerable salt-water creeks intersecting the estates, it is in the highest degree improbable that the proprietors would be willing to take a Permanent Settlement of their estates.' There are, however, several small permanently settled estates in Hijili, and the Settlement Officer states that 'it is only because the Jalámutá and Majnámutá estates were so extensive that no Permanent Settlement could be made. A storm-wave sweeping over the country would leave not a vestige of any crop. The owner of an estate consisting of a single, or even of two or three *parganá*s, might meet the losses of one year from the savings of other years. The proprietors of the Jalámutá and Majnámutá properties could not recover the loss, unless remissions of revenue were granted by the State,—a measure never taken with regard to a permanently settled estate.' Patáspur, the third large temporarily settled estate, is situated north of Hijili. It was held by the Marhattás up to 1804, when it was ceded to the British Government, and has never been permanently settled.

The Settlement Officer states that it is in no way inferior to any of the adjoining permanently settled *pargands*. The fourth large temporarily settled estate is Kalyánpur, in the Jungle Mahals on the west of the District, consisting of *taufir* or excess lands,—that is to say, lands which by oversight escaped settlement, and when subsequently detected were liable to assessment, but have not been brought under the Permanent Settlement. The Settlement Officer mentions that this estate enjoys a greater degree of prosperity than the adjoining permanently settled *pargands*. Another temporarily settled estate is Balrámpur *pargand*, situated about ten miles south of the town of Midnapur. This *pargand* was permanently settled in 1793, but was purchased by Government in 1838 at a sale for arrears of revenue. Since then it has been let in farm under different engagements, Government not choosing to manage it directly. The Settlement Officer states that the *pargand* is very backward as regards cultivation, and covered with jungle, but that it is not in a worse state than the permanently settled *pargands* adjacent to it.

MODE OF COLLECTING LAND REVENUE.—The following paragraphs, extracted from a Special Report from the Settlement Officer, furnished to me through the Collector, illustrate the methods adopted in Midnapur for the recovery of arrears of revenue :—‘The land revenue of all permanently settled estates is paid into the Treasury by instalments at fixed dates. If any default is committed, the estate of the defaulter is put up for sale to the highest bidder, and the arrears are made good from the sum which it fetches. If the amount of the highest bid does not equal the arrears, the other property, real and personal, of the defaulter is liable to seizure and sale. It is only when there are no bidders that Government itself becomes the purchaser for a nominal sum of one rupee. As a rule, none but petty estates fall into arrear and are sold. Even these are few; and the amount of the highest bid is almost always sufficient to meet the Government demand. I cannot recall to mind a single instance of late years where Government has become the purchaser of any but a very insignificant estate. I do not think any permanently settled estate was ever brought to the hammer for arrears of revenue caused by a deficiency of the rents collected, except when wasting by diluvion. When a permanently settled estate falls into arrears, it is almost always due to extravagance, improvidence, or want of management, on the part of the *samíndár*, and not because

the yearly collections from the estate are unequal to the Government yearly demand.

‘In temporarily settled estates, default in payment of the Government revenue during the term of a settlement is rare. One notable instance of this, however, occurred in 1851, when the proprietors of the Jalámutá and Majnámutá estates fell into arrears, before more than fifteen years of the settlement had run, and the properties were taken under the direct management of Government. It is not the rule to sell a temporarily settled estate when the land revenue is in arrear, but for Government to take it under its own direct management, or to let it in farm to an outsider. It has always been recognised in this District, that the proprietors of temporarily settled estates should be granted remissions or suspensions of land revenue in times of inundation, drought, and other calamities resulting in the loss of crops. The extent of the relief is regulated by local inquiry, and the proprietor is bound to allow the cultivators to share in it. Besides the instance alluded to above, I can recall to mind no other case where remissions were granted, although they are frequently demanded. On the expiration of a settlement, and before a re-settlement, it is not unusual for a temporarily settled estate to be taken under direct management, owing to the refusal of the proprietor to agree to the terms proposed. An ascertained deficiency in the rents during this intermediate period would affect the Government demand, but such a deficiency seldom occurs. In all other respects, the time of payment and the amount of the land revenue in temporarily settled estates are as fixed as in permanently settled estates. When once the proprietor of an estate has agreed to the terms of a settlement, he is altogether responsible for the revenue, and rarely commits default.’

COST OF COLLECTION OF LAND REVENUE.—I take the following sentences from the same Special Report by the Settlement Officer:— ‘It is not easy to institute any comparison between the cost of collection of the land revenue in permanently and in temporarily settled estates. The Government demand in permanently settled estates, which was fixed in 1793, was, I may say in every case, greatly below the present gross assets. If I do not mistake, in ascertaining the rental (*sadr jamá*) for the Settlement of 1793, a deduction of ten per cent., and in some cases of twenty per cent., was made to the proprietors from the gross assets as *tahsildáná*, or costs of collection. Whatever deductions were then made, they were calculated upon

assets which have vastly increased at the present day. There is one estate in the District (Jhārgāon) in which the Government demand is not more than £70 per annum. Whatever percentage may have been calculated as collection charges in 1793, at the present day it is found that the gross collections of the estate amount to more than £4000. The percentage, therefore, granted in 1793 as the expenses incurred in the collection and payment of £70 into the Government Treasury furnishes no index as to the landholder's present profits.' The Collector mentions, however, that this is one of the jungle estates belonging to a *samindār* who calls himself a Rájá, and whose ancestors were semi-independent chiefs. The payment was at first more of the character of tribute than of land revenue. The Settlement Officer proceeds: 'In an adjoining estate which is temporarily settled, the cost of collection in 1839 was estimated to be about fifteen per cent. on a gross revenue of £660. The Government revenue amounted to £325, 18s., after deducting the *samindār's* proprietary allowance and collection expenses. During the course of the current year (1873), I have ascertained that the gross revenue of the estate is rather over than below £1335. My re-settlement operations in evolving this increased rental cost the Government about £650. Excluding *mdlikáná* or proprietary allowance, as well as the collection charges, from £1335, the Government demand will amount to about £854, or £528, 2s. more than has hitherto been paid. In estimating the charges for the collection of this sum over a period of thirty years, which will most probably be the term of re-settlement, I may fairly add the initial cost of re-settlement to the yearly recurring charge of fifteen per cent., and this will make a total of about £8663 as expenses incurred in the collection of £25,620 for the next thirty years. That is to say, that within the next thirty years £4700 will be spent for the collection of an enhancement to the Government demand which amounts to £12,960 after deducting proprietary allowance. In no temporarily settled estate is the total cost of collection estimated to exceed twenty per cent. The actual cost to Government for collection of the land revenue in permanently settled estates is that of the usual establishment salary added to the original cost of making the Permanent Settlement of 1793; in temporarily settled estates, the cost to Government is that of the usual establishment salary plus the cost of the original settlement and of successive re-settlements.' The Settlement Officer states that the

higher cost of collection charges in temporarily settled estates is more than counterbalanced by the enhanced revenue which Government derives from these estates at every fresh settlement.

ARREARS OF LAND REVENUE.—The Collector has furnished me with the following table, showing the total land revenue demand, and total arrears which have accrued, in the whole District and in the temporarily settled estates respectively, for the ten years ending 1871-72. The proportion of arrears accruing from permanently settled estates is much less than that accruing from those under temporary settlement. The aggregate Government demand from temporarily settled estates includes demands for temporarily settled *chars*, resumed rent-free lands under settlement, abandoned salt lands farmed out pending settlement, etc., and it is mainly with regard to these that the arrears occur. During the ten years 1862-63 to 1871-72, the aggregate land revenue demand from the whole District amounted to £2,033,274, the total arrears during that period to £108,390, 10s. od., or 5.33 per cent. of the demand. In the temporarily settled estates, the land revenue demand during the same period aggregated £242,156, 14s. od., and the arrears £51,243, 15s. od., or 21.16 per cent. of the land revenue demand in those estates, thus :—

STATEMENT SHOWING THE TOTAL LAND REVENUE DEMAND AND TOTAL ARREARS IN MIDNAPUR DISTRICT AND IN THE TEMPORARILY SETTLED ESTATES OF THE DISTRICT RESPECTIVELY, FROM 1862-63 TO 1871-72.

Years.	Total Land Revenue Demand.			Total Arrears.			Total Land Revenue Demand.			Total Arrears.		
	For the whole District.						For the Temporarily Settled Estates only.					
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1862-63,	202,007	12	0	8,588	4	0	24,002	15	0	2,727	6	2
1863-64,	203,569	18	0	9,029	4	0	24,002	15	0	3,469	19	11
1864-65,	204,258	16	0	39,299	16	0	24,002	15	0	17,117	18	8
1865-66,	201,926	0	0	25,271	4	0	24,002	15	0	17,291	6	5
1866-67,	198,624	4	0	5,172	4	0	20,238	9	0	803	9	7
1867-68,	206,876	0	0	4,841	8	0	29,340	7	0	1,803	2	7
1868-69,	202,375	4	0	4,172	0	0	24,116	1	9	2,947	8	5
1869-70,	203,487	10	0	1,142	4	0	23,999	9	9	...		
1870-71,	204,295	0	0	3,762	14	0	23,999	9	0	2,911	6	6
1871-72,	205,854	14	0	7,111	12	0	24,451	17	3	2,171	16	9
Total, .	2,033,274	18	0	108,390	10	0	242,156	13	9	51,243	15	0

It will be observed that the Land Revenue for 1871-72 given in this table slightly exceeds that which I have given on a previous page. The explanation is, that the amount shown in this table represents the 'total land revenue demand,' whilst that given in treating of the land tax is the 'current demand' only.

OPERATION OF THE LAND LAW.—The number of rent cases instituted under the provisions of Act X. of 1859—the Land Law of Bengal—is returned by the Collector as follows:—In 1861-62, 3261 original suits were instituted, besides 797 miscellaneous applications; in 1862-63, there were 4764 original suits, besides 1443 miscellaneous applications; in 1866-67 (after the famine), the number of original rent suits had increased to 6476, and the miscellaneous applications to 3185. In 1868-69, the number of suits instituted was 4831, besides 3985 miscellaneous applications.

PROTECTION TO PERSON AND PROPERTY has been rendered more exact of late years. In 1805 there were only two Magisterial Courts in the whole District; in 1850 there were six Magisterial and seven Revenue Courts; in 1862, ten Magisterial and eleven Revenue Courts; in 1869, eleven Magisterial and eleven Revenue Courts; and in 1870-71, twelve Magisterial and twelve Revenue Courts. The number of Civil Courts is returned at nine in 1860-61, and eight in 1870-71. The number of Covenanted English officers at work in the District throughout the year was two in 1805, five in 1850, five in 1860-61, and six in 1870-71.

POLICE PROTECTION has steadily increased. During the first part of the century a regiment was stationed in the District, but no records exist showing the strength and cost of the police. In 1860, the military force had given way to a battalion of police, besides 12,361 village watchmen. The present police force of Midnapur District consists of the regular police, a municipal police for the protection of the towns, and a village watch or rural police.

THE REGULAR POLICE or constabulary force stood thus at the end of 1871:—3 superior European officers, comprising a District Superintendent and two Assistant Superintendents, maintained at a total salary of £1800; five subordinate officers on a salary of upwards of £120 per annum, and 139 officers on less than £120 a year,—maintained at a total cost of £4878, or an average pay for each subordinate officer of £33, 17s. 6d. per annum; 696 foot and 6 water constables, maintained at a total cost of £5486, 8s., or an average pay of £7, 16s. 3d. per annum for each man. The other ex-

penses connected with the District Police are:—A sum of £170 allowed as travelling expenses for the Superintendent and Assistant Superintendents, £309, 16s. od. for pay and travelling allowances of their establishments, and £973, 14s. od. for contingencies, bringing up the total cost of the regular police of the District to £13,617, 18s. od. The Census Report of 1872 returns the area of Midnapur District at 5082 square miles, and the population at 2,540,963 souls. According to these figures, the total strength of the regular police force is one man to every 5·98 square miles of the District area, or one man to every 2992 of the population. The cost of maintaining them is equal to £2, 13s. 7d. per square mile of area, or a fraction over 1½d. per head of the population.

THE MUNICIPAL POLICE is a small force maintained in the large towns. At the end of 1871, it consisted of 5 officers and 95 men, maintained at a total cost of £665, 12s. od., defrayed by means of rates levied from the householders and traders living or carrying on business within the municipal limits. In 1871, there were only two municipalities in Midnapur District—Midnapur town itself, and the Subdivisional town of Tamluk. The Census Report of 1872 returned the population of these two towns at 37,340. The strength of the municipal police, as compared with the town population, therefore, is one man to every 373 souls, maintained at a cost of 4½d. per head of the town population. The two other municipal towns, Chandrakoná and Ghátál, were only transferred to Midnapur in June 1872.

THE RURAL POLICE consists of two distinct bodies, the *páiks* and the *chaukidárs*. The *samindárs* in olden times retained large bands of *páiks* for the purposes of aggression or defence. Mr. D. J. M'Neile, in his Report on the Rural Police of Midnapur, dated May 1866, thus describes the manner in which these men were employed at the time when the District first came into our hands:—'Throughout the western and northern parts of the District, the *samindárs* lived in their *garhs* or forts, and kept up large bands of armed retainers. These bands were composed of horsemen (*sawárs*) and footmen (*páiks*), and were employed, sometimes in fighting the Marhattás or resisting a raid of Chuárs from the western hills, sometimes in plundering a neighbouring estate, and sometimes in opposing by force the demand of the Mughul Government for tribute. They were also employed in carrying on the rude system of internal police administration which the *samindárs* maintained within their several estates; and throughout

a large portion of the District there seems to have been no other police whatever. They were maintained by grants of *jágr* land, some at low quit-rents, others free of all rent except that represented by the service rendered by them to the *zamíndárs*. In a letter from the Magistrate of Midnapur to the Government, dated 11th January 1793, the extent of each of these *jágrs* is stated to have been from two to thirteen acres. But an old record now in the Midnapur Collectorate contains a list of *páiks* in Midnapur *parganá* some of whom are entered as each in possession of from 65 to 130 acres of service land. These *páikan jágr* lands are most frequently met with in the northern and western tracts, particularly in *parganá*s Midnapur, Manohargarh, Bhanjbhúm, Bagri, and Bráhmabhúm. Throughout the southern and eastern tracts of the District, very few *páiks* seem to have been entertained. The relative positions of the Government, the *zamíndárs*, and the *páiks* are defined as follow :—The *zamíndár* is responsible to Government for the efficient service of *páiks*. He is to make appointments of *páiks*, giving preference to the heirs of old incumbents if they are qualified for the duty, and to dismiss them for incompetence or misconduct, and to make over their lands to others. The *páiks*, on their part, are responsible to the *zamíndárs*; but the *zamíndárs* are responsible to Government for keeping them in a state of efficiency.

The second branch of the rural police of Midnapur is the ordinary village watchman, or *chaukidár*, common throughout Bengal, who is principally met with in the southern and eastern tracts of the District. Mr. M'Neile, in his Report on the Rural Police of Midnapur, thus speaks of this force :— 'In the early correspondence there is no allusion to any establishment of village watchmen, properly so called, in Midnapur. Where the *páiks* were entertained in large numbers, they very probably supplied the place of ordinary watchmen. In some *parganá*s there would appear to have been no residents except the *páiks*, who lived at outposts scattered through the jungle. And at the present day (1866), the Garhbetá, Bhímpur, Kespur, Sálbaní, and Gopíballabhpur *thánás* are almost destitute of any village watchmen other than *páiks*. Nevertheless there is distributed, principally over the southern and eastern parts of the District, a numerous body of village *chaukidárs*. Now, if these men were remunerated by assignments of land, no doubt could exist of their belonging to an institution of immemorial origin, probably coeval with the first occupation of the country. But with

a very few exceptions, they are maintained entirely by the contributions in cash and grain of their fellow-villagers, although throughout Orissa, upon the annexation of the province by the British, the village watchmen were universally found in possession of service land. The inference seems to be, that the existing *chaukidárs* belong to an establishment of modern date, the creation of the District Magistrates since the commencement of the century. But evidence has not come to light to prove the fact. Not only in the correspondence relative to the great police changes of 1793, but in several reports connected with the Midnapur police, of various dates from 1812 to 1819, the period during which the *chaukidári* establishments in the eastern Districts were for the most part introduced, no mention is made of any police in Midnapur except the *tháná* police and the *páiks*.'

In 1866, Mr. M'Neile returned the number of rural police as follows:—*Chaukidárs*, 6267, of whom 674 were maintained by grants of service land, 446 maintained by the *samindárs*, 4365 by the villagers, and 782 by Government; *páiks*, 6094, all in occupation of lands under a service tenure, which they held either rent-free or at a low quit-rent; total, 12,361. In 1871, the Inspector-General of Police returned the village police in Midnapur, without distinguishing between *páiks* and *chaukidárs*, at 10,015, maintained by grants of land and contributions from the people, at an estimated total cost, including both sources, of £14,021 per annum. This would give an average yearly income of £1, 8s. od. per man; but the village watch levy various perquisites from the hamlets to which they are attached. Each village watchman or rural policeman has, on an average, charge of 23 houses.

Including the regular District Police, the Municipal or Town Police, and the Rural Police, the machinery for protecting person and property in Midnapur consisted in 1871 of a force of 10,964 officers and men, equal to an average of one man to every '46 of a square mile as compared with the area, or one man to every 231 souls as compared with the population. The aggregate cost of this force in 1871 was £28,304, 10s. od., equal to a charge of £5, 11s. 4d. per square mile, or 2½d. per head of the population. For police purposes, Midnapur is divided into 25 police circles or *thánás*, as under:—(1) In the Headquarters Subdivision—Midnapur, Náráyangarh, Dántun, Gopíballabhpur, Jhárágón, Bhímpur, Sálbaní, Kespur, Dáspur, Debrá, and Sabang. (2) In the Tamluk Subdivi-

sion—Tamluk, Pánchkurá, Maslandpur, Sutáhátá, and Nandigáon. (3) In the Contai (Kánthl) Subdivision—Contai, Raghunáthpur, Egrá, Khejiri (Kedgeree), Patáspur, and Bhagwánpur. (4) In Garhbetá Subdivision—Garhbetá, Chandrakoná, and Ghátál.

WORKING OF THE POLICE.—During the year 1871, the police conducted 2316 'cognisable' cases, the percentage of final convictions to persons brought to trial being 58·0 per cent.; and 3807 'non-cognisable' cases, the proportion of final convictions to prisoners brought to trial being 55·2 per cent. The total number of both cognisable and non-cognisable cases in 1871 was 6123, the percentage of final convictions being 56·4 per cent. The following are the principal cases of serious crime which occurred in Midnapur during the years 1870 and 1871:—In 1870, 11 cases of murder were reported, of which detection followed in 5, or 45·5 per cent.; in 1871, the number of murder cases was 15, of which convictions were obtained in 8, or 53 per cent. In 1870, 23 cases of *dákáiti* or gang-robbery were reported, of which detection followed in 13, or 56·5 per cent. In one of these cases, the tenants of an estate which had been sold, owing to the former owner's extravagance, to the Rájá of Bardwán, set their late landlord on an elephant, and attacked the Rájá's *kachári*, or court, and plundered it of £1398, of which only £183, 10s. od. were recovered. Fifty-nine men were arrested, of whom 47 were committed for trial, and 36 finally convicted at the Sessions Court. In 1871, 21 cases of *dákáiti* occurred, of which conviction followed in 10, or 47 per cent. With regard to this class of crime, the Inspector-General of Police, in his Report for 1871, states that, although *dákáiti*s still rank high in Midnapur, the number is nothing like what it was in former years. In 1870, the number of robberies was returned at 5; conviction followed in 4, or 80 per cent. Eleven cases of this class of crime were returned in 1871, but the Inspector-General's Return does not give the number or proportion of convictions. The District ranks rather high in the percentage of acquittals in cases tried at the Sessions Court; but the percentage is not nearly so large as in any of the Districts of the Presidency Division on the opposite side of the Húglí, and where the jury system is in operation. Out of a total of 207 cases tried at the Sessions Court of Midnapur, acquittals followed in 89, or 43 per cent. The number of salt-smuggling cases shows a considerable increase in 1871 over that of the previous year. In 1870, 130

cases were reported, in which 376 persons were arrested, and 307 finally convicted; the quantity of salt confiscated was about twenty-five hundredweights, and the amount of fines realized, £216, 15s. od. In 1871, the number of reported cases had increased to 239, in which 553 persons were arrested, and 484 were finally convicted; the quantity of salt confiscated was about four and three-quarter tons, and the fines realized, £496, 15s. od. The Inspector-General of Police, in his Report for 1871, states that the increase in that year is attributed to the successful working of a special body of police told off for preventive duty during the salt-manufacturing season, in the Subdivisions of Tamluk and Contai.

JAIL STATISTICS.—Besides the central jail in the town of Midnapur, there are four jails in Midnapur District for local prisoners, viz. the principal jail at the Civil Station of Midnapur, and the lock-ups at the Subdivisional towns of Tamluk, Contai (Kánth), and Garhbetá. The following are the statistics of the jail population of Midnapur for the years 1857-58, 1860-61, and 1870. The figures for the two former years must be received with caution, and looked upon as only approximately correct. Owing to defects in the form of the returns from which the figures have been collated, and which cannot now be remedied, in some cases the same prisoners are counted two and three times over; prisoners transferred to the District jail from the Subdivisional lock-ups being returned in both statements, without allowance being made for the transfer. Under-trial prisoners at the end of the previous year, but who were subsequently convicted during the year to which the figures refer, are also returned under both heads. Since 1870, however, an improved form of preparing the returns has been introduced, and all such transfers have been duly allowed for. The statistics for that year may be accepted as correct.

In the year 1857-58, the first year for which materials are available, the daily average number of prisoners in the Midnapur jail and Subdivisional lock-ups was 708; the total number of criminal, civil, and under-trial prisoners admitted during the year being 1236. The discharges were as follow:—Transferred, 207; released, 1642; escaped, 14; died, 188; executed, 4: total discharged, 2055. These figures are given in a special return furnished to me by the Inspector-General of Jails. The records do not enable me to explain why the number of prisoners discharged from jail in 1857-58 is so much in excess of the total admissions of the year, or to reconcile

the apparent discrepancy. In 1860-61, the jail returns show a daily average prison population of 656, the total number of prisoners admitted during the year being 1834. The discharges were—transferred, 342; released, 1554; died, 163; escaped, 3; executed, 2: total discharged, 2064. In 1870, the daily average jail population was 1096, the total number of prisoners admitted during the year being 1815. The discharges were—transferred, 142; released, 1560; escaped, 16; died, 50; executed, 3: total discharges, 1771. The average term of residence of each prisoner in jail was 401 days.

The sanitary condition of the Midnapur jail has greatly improved of late years. In 1857-58, the percentage of prisoners admitted to hospital amounted to 208·47, and the deaths to no less than 26·55 per cent. of the mean jail population. In 1860-61, the percentage of admissions to hospital was as high as 397·40 per cent., and the death-rate 24·84 per cent. of the average jail population. In 1870, the admissions into hospital had fallen to 81·93 per cent., and the death-rate to 4·56 per cent. of the average prison population. In the previous year, 1869, the death-rate was only 2·75 per cent. The Inspector-General of Jails, in his Report for 1870, states that the increase of mortality in 1870 appears to have been due in a great measure to the prevalence of lung diseases towards the close of the year. Excluding phthisis, there were 79 cases of this nature, with 9 deaths; from phthisis there were 3 deaths,—making 12 deaths in all from such affections. Pneumonia was also very prevalent among the outside population. A large number of deaths from cholera tended further to increase the mortality rate, and there were six deaths from dysentery. The prevailing diseases were fever,—of which there were 249 cases,—dysentery, pneumonia, and anæmia.

COST OF JAIL MAINTENANCE.—The average cost of maintenance per prisoner in Midnapur jail, including rations, establishment, hospital charges, clothing, contingencies, and all other expenses except the prison police guard, is returned as follows:—In 1854-55 it was £5, os. 6½d. per head; in 1857-58 it was £3, 16s. 3½d.; in 1860-61, £3, 19s. 10½d.; and in 1870-71, £3, 16s. 11d. The cost of the jail police guard in 1870 amounted to an average of 19s. 9½d. per head, making a gross charge to Government of £4, 16s. 8½d. per prisoner. The Inspector-General of Jails, in his Report for 1870, returns the total cost of the Midnapur jail, including police guard, but excluding cost of alterations and repairs, at £4921, 3s. 2d. Excluding cost of police guard, which is included in the general

police budget of the District, the cost of the jail amounted to £3909, 7s. od. The jail manufactures and other work performed by the hard-labour prisoners contribute but little towards the expense of the jails. In 1854-55, the receipts arising from the sale of prison manufactures, and the value of stock remaining on hand, amounted to £473, 5s. 11d., and the charges to £250, showing an excess of receipts over charges of £223, 5s. 11d., equal to an average earning of £1, 14s. 4d. by each prisoner employed in manufactures. In 1857-58, the receipts from sale of manufactures, and the value of stock left in hand at the end of the year, amounted to £1104, 2s. od., and the charges to £749, 17s. 3d., leaving an excess of receipts over charges of £354, 4s. 9d.; average earning by each prisoner employed on manufactures, £1, 6s. 1d. In 1860-61, the receipts from jail manufactures amounted to £1428, 8s. od., and the charges connected with them to £722, 5s. 3d.; excess of receipts over charges, £706, 2s. 9d.; average earning by each prisoner employed on manufactures, £3, 3s. 7½d. In 1870, the credits arising from jail manufactures amounted to £1414, 4s. 9d., and the debits to £1157, 15s. 2d.; excess of credits over debits or profit, £256, 9s. 7d.; average earning by each prisoner employed on manufactures, £1, 7s. 1½d. In the previous year, 1869, the manufacturing operations in connection with the jail were carried on at a loss. Of the 189 prisoners employed in manufactures or remunerative labour in Midnapur jail in 1870, 31 were employed in gunny-weaving; 85 in gardening; 26 in cloth weaving; 4 in bamboo, rattan, or reed work; 20 in brick-making; 17·50 in oil-making; 3 in flour-grinding; 1 as a carpenter; 2 in iron work; 6 in tailoring; 9 in grinding pulses; and 4·30 in other manufactures: total, 189.

The town of Midnapur has also been chosen as the site of a central jail, for long-term prisoners from all parts of the Bardwán Division, and from neighbouring Districts. This central jail is still (1873) in course of building, but has during the past two years been utilized for the residence of the convicts engaged on its construction. As the central and district jails are occupied to a certain extent by different classes of prisoners, I have thought it desirable, in amplification of the above figures, to append the following statistics, taken from the Annual Report of the Inspector-General of Jails for 1872. In that year the average number of prisoners in the central jail was 753, and in the district jail and lock-ups 469. The total number of prisoners admitted into the

central jail was 1370, all of whom were transferred from other jails ; and into the district jail and lock-ups, 2640. The discharges were—from the central jail, transferred 302, released 270, escaped 1, died 67, executed 0 ; total of discharged from all causes, 640 : from the district jail and lock-ups, transferred 750, released 1428, escaped 1, executed 2, died 40 ; total discharges, 2221. The sanitary condition of both these jails during the year under notice was not good. The number of admissions into hospital of the two jails was 9151 of the average strength of the prisoners ; the deaths amounting to no less than 9·96 per cent. of the mean jail population. This high rate of mortality is attributed by the Inspector-General to the exposure of the labouring convicts in the quarry works, whence materials were being obtained for the completion of the new central jail. These quarry works were discontinued, and for this as well as economical reasons, it was determined to carry on the jail with brick instead of laterite. Dysentery was the disease that proved most fatal, and the deaths from cholera during the year were *nil*. The average cost of maintenance per prisoner in the central jail, including all ordinary expenses except the police guard, was £4, 1s. 6d. ; and in the district jail, £3, 12s. 1½d. The cost of the police guard in the central jail amounted to 9s. 9d. per head, making a gross charge to Government of £4, 11s. 3d. per prisoner ; and in the district jail to 15s. 6d. per head, making a gross charge of £4, 7s. 7½d. The total cost of the central jail, excluding the cost of police guard, which is included in the general budget of the District, is returned at £3928, 15s. ; and of the district jail, at £1479, 2s. 6d. There was not much improvement this year in the results derived from the jail manufactures and other work performed by the hard-labour prisoners. In the central jail the greater part of the convicts, viz. 430, were employed on public works, which term in this case means quarrying and other operations subsidiary to the building of their own jail. The estimated value of the work thus done in the whole year amounted to £2235, and the estimated annual earnings of each prisoner thus employed to £6. No prisoners in this jail are employed on remunerative manufactures. In the district jail, the total credits arising from jail manufactures amounted to £699, 3s. 7½d., and the total debits to £495, 5s. od. ; thus leaving an excess of credits over debits or profit of £203, 18s. 7½d. ; average earning of each prisoner thus employed, £2, 7s. 1½d. The Inspector-General, however, in his

Report, throws doubt upon the accuracy of these latter figures, as including an undue proportion of manufactured goods left unsold at the end of the year. He comes to the conclusion, from a comparison of the amount expended on the manufacture department with the total of cash remitted to the Treasury, that there was an actual cash loss during the year of £260, 4s. 7½d. Of the 142 prisoners employed in remunerative labour in the district jail, 49 were engaged in cloth-weaving, 45 in gunny-weaving, 35 in gardening, and 13 in oilmaking. The ultimate relation between these two jails does not seem to have been yet permanently established. The majority of the sick in the central jail were during the year removed into the hospital of the district jail; and in point of fact the two jails have been regarded during the past year (1872) as one; prisoners having been freely transferred, without reference to the locality of their crimes, from one to the other, from considerations of health and of convenience to the Public Works Department. Some account of the education attempted in these two jails, which is described as 'very successful,' will be found later on in this volume, p. 185.

EDUCATIONAL STATISTICS.—Education has rapidly diffused itself in Midnapur District within the last fifteen years; the number of Government and Aided Schools having increased from 14 in 1856-57, to 223 in 1870-71, and the total number of pupils from 1340 to 8125 in the same period. This is altogether distinct from 1732 private and unaided schools returned by the Inspector of Schools in 1871, attended by an estimated number of 19,413 pupils. The following comparative tables, compiled from the Reports of the Director of Public Instruction for 1856-57, 1860-61, and 1870-71, exhibit the number of Government and Aided Schools in the District at each of these years, the number of pupils attending them, the cost of education to Government, and the amount defrayed by fees or from private sources. The greatly increased proportion of the cost of education borne by private contributions, which has risen from £459, 1s. 1d. in 1856-57, to £3536, 4s. 10d. in 1870-71, testifies to the general interest which is now being taken by the people themselves in the cause of education. The cost of schools to Government has increased in a like proportion from £705, 7s. 0d. in 1856-57, to £3744, 8s. 4d. in 1870-71. In the schools the most marked increase is in the Aided Vernacular Schools, which have risen from 5 in 1856-57, to 190 in 1870-71, and the scholars in the same period from 289 to 5989.

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN MIDNAPUR DISTRICT, FOR THE YEARS
1856-57, 1860-61, AND 1870-71.

CLASSIFICATION OF SCHOOLS.	Number of Schools.		NUMBER OF PUPILS.													
			Hindus.				Muhammadians.				Others.				Total.	
	1856-57	1860-61	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71		
Government English School.	1	1	157	223	214	13	12	11	2	...	...	172	235	225
Government Vernacular Schools.	6	6	585	525	597	39	27	32	...	...	...	624	552	629
Government Institution for special Education.*	...	...	...	...	60	...	...	...	...	...	...	...	...	60
Aided English Schools.	2	12	202	144	945	53	12	58	...	...	...	255	156	1010
Aided Vernacular Schools.	5	9	287	478	5727	2	2	230	...	5	...	289	485	5989		
Aided Girls' Schools.	...	...	...	...	113	...	...	24	...	...	...	...	...	137
Private Institution for special Education.†	...	...	...	...	3	...	...	...	...	...	...	...	...	75
Total.	14	18	1231	1370	7659	107	53	355	2	5	111	1340	1428	8125		

* The Midnapur Training or Normal School, for masters, established in 1856.

† The two Aided English Schools in 1856 and 1860 were at Contai and Tamliuk. In 1860-61, there were no pupils in the English Department of the Contai School. Such Schools have Vernacular Departments attached to them, and the columns opposite this class of Schools show the total pupils and total cost of both the English and Vernacular Departments.

‡ Another Training School for masters, supported partly by Government and partly by the American Baptist Mission. It is intended for the purpose of supplying masters to the Schools in the Santál villages.

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN MIDNAPUR DISTRICT—continued.

CLASSIFICATION OF SCHOOLS.	Cost to Government.			Amount realized by Fees and Private Contributions.			Total Cost.		
	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Government English School,	270 6 0	357 19 8	402 9 7	269 18 8	296 9 11	404 16 1	540 4 8	654 7 7	807 5 8
Government Vernacular Schools,	312 11 4	326 11 7	227 4 11	54 7 2	79 15 9	249 2 4	366 18 6	406 7 4	476 7 3
Government Institution for special Education,*	...	...	697 7 3	...	...	...	...	...	697 7 3
Aided English Schools, .	77 2 1	138 6 0	956 18 9	89 4 11	169 6 1	1403 8 3	163 7 4	275 6 3	2287 19 8
Aided Vernacular Schls.,	45 7 7	117 2 8	1321 14 3	45 10 4	132 12 10	1200 13 9	90 17 11	248 19 6	2513 8 8
Aided Girls' Schools, .	...	...	70 1 7	...	...	99 12 5	...	...	177 16 1
Private Institution for special Education,† .	...	...	118 12 0	...	...	178 12 0	...	...	297 4 0
Total,	705 7 0	939 19 11	3744 8 4	459 1 1	678 4 7	3536 4 10	1161 8 5	1585 0 8	7257 8 7

* The Midnapur Training or Normal School, for masters, established in 1856.

† Another Training School for masters, supported partly by Government and partly by the American Baptist Mission. It is intended for the purpose of supplying masters to the Schools in the Santal villages.

In the following year, 1871-72, the number of Government and Aided Schools had increased to 272, and the number of pupils to 8970, of which 7890 were Hindus, 323 were Muhammadans, and 757 were either Santáls or Christians (principally the former). Regarding the social status of the pupils, 24 belonged to the upper, 3174 to the middle, and 5771 to the lower classes. Besides these State Schools, there were also 1732 private and unaided schools, uninspected by the Educational Department, but reported by the police, containing a total estimated number of pupils of 19,413; making a grand total of 2004 schools in Midnapur District, attended by 28,144 pupils, or one school to every 2·53 square miles of area, and one to every 1268 of the population, attended by one student for every 90 of the population. Excluding the 4 girls' schools, attended by 132 pupils, the result shows 2000 schools for the male population, attended by 28,012 boys. Taking the male population at 1,257,194, this gives one school for every 628 males, and one boy attending school for every 44 of the male population. The following statement of schools in 1871-72, and the succeeding paragraphs, are reproduced from the Annual Report of the Educational Department for that year. It exhibits the state of public instruction in a somewhat different form than the foregoing table, and indicates the number of unaided schools and pupils in the District:—

HIGHER CLASS SCHOOLS.—‘There are in Midnapur,’ says the Inspector, ‘four higher class schools. The one situated at the *sadr* station is called a Government school, because it is under the direct management of the Educational Department; though, of the £762, 10s. expended on it, £493, 10s. od. were collected as tuition fees, whilst the Government contribution was £269 (1871-72). At the close of the year the school was attended by 246 students, whilst the average daily attendance was 192. In the Tamluk aided higher school, the cost to Government was £76, 16s. od.; £76, 0s. od. were collected from fees, and £260, 4s. od. from other local income. At the close of the year there were 76 students in the school, the average daily attendance being 50. In the two unaided higher class schools, attended at the close of the year by 201 students, with an average daily attendance of 141, £195, 8s. od. was collected in the shape of schooling fees, and £353, 12s. od. contributed from other local sources. One of these schools is supported by the Rájá of Mahishádal on his *samindári*, nearly opposite Diamond Harbour. No schooling fee is

[Sentence continued on p. 178.]

RETURN OF SCHOOLS IN MIDNAPUR DISTRICT IN 1871-72.

DESCRIPTION OF SCHOOLS.	Number of Schools on 31st March 1872.	Number of Pupils attending on 31st March 1872.	Average Attendance.	Number of Masters.	RECEIPTS.			TOTAL COST.	Average Cost to Govt of each Pupil.	Total Average Cost of each Pupil.
					Fees and Fines.	Government Grant.	Local Subscriptions.			
(1) Higher Schools—										
Government.	1	246	192	10	£ s. d. 493 10 0	£ s. d. 269 0 0	£ s. d. 762 10 0	£ s. d. 1 1 10½	£ s. d. 3 1 11½	
Aided.	1	76	50	6	76 0 0	76 16 0	413 0 0	1 0 2½	5 8 8½	
Unaided.	2	201	141	9	195 8 0	...	549 0 0	...	2 14 7½	
Total.	4	523	383	25	764 18 0	345 16 0	1724 10 0	0 13 2½	3 5 11½	
(2) Middle Schools—										
Aided English.	17	826	607	63	348 14 0	542 12 0	1554 0 0	0 13 1½	1 17 7½	
Unaided English.	1	38	23	2	1 6 0	...	14 16 0	...	0 7 9½	
Government Vernacular.	7	517	390	18	204 16 0	181 4 0	444 6 0	0 7 0½	0 17 2½	
Aided Vernacular.	26	1125	777	62	197 8 0	398 16 0	934 6 0	0 7 1	0 16 7½	
Total.	51	2506	1797	145	752 4 0	1122 12 0	2947 8 0	0 8 11½	1 3 6½	
(3) Primary Schools—										
Aided.	214	5671	3,959	206	492 18 0	1007 4 0	1713 4 0	0 3 6½	0 6 0½	
Unaided.	1729	19,174	15,000	1729	3360 0 0	...	3360 0 0	...	0 3 6½	
Total.	1943	24,845	18,959	1935	3852 18 0	1007 4 0	5073 4 0	0 0 9½	0 4 1	

RETURN OF SCHOOLS IN MIDNAPUR DISTRICT IN 1871-72—continued.

DESCRIPTION OF SCHOOLS.	Number of Schools on 31st March 1872.	Number of Pupils attending on 31st March 1872.	Average Attendance.	Number of Masters.	RECEIPTS.			Total Cost.	Average Cost to Govt of each Pupil.	Total Average Cost of each Pupil.
					Fees and Fines.	Government Grant.	Local Subscriptions.			
(4) <i>Normal Schools</i> —										
Government,	1	83	53	3	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Aided,	1	55	60	3	... ..	617 4 0	617 4 0	7 8 8½	7 8 8½	7 8 8½
Total,	2	138	113	6	... ..	120 0 0	240 0 0	2 3 7½	4 7 3½	4 7 3½
(5) <i>Girls' Schools</i> —										
Aided Girls' Schools,	3	72	54	3	... ..	37 4 0	81 2 0	0 10 4	1 2 6½	1 2 6½
Zanáná Association,	1	60	78	8	3 4 0	36 0 0	113 18 0	0 12 0	1 17 1½	1 17 1½
Total,	4	132	132	11	3 4 0	73 4 0	195 0 0	0 11 1½	1 9 6½	1 9 6½
Total Government and Aided,	272	8,731	6,220	382	1816 10 0	3286 0 0	6,873 10 0	0 7 6¼	0 15 8½	0 15 8½
Total Unaided,	1732	19,413	15,164	1740	3556 14 0	... ..	3,923 16 0	... ..	0 4 0½	0 4 0½
Grand Total,	2004	28,144	21,384	2122	5373 4 0	3286 0 0	10,797 6 0	0 2 4	0 7 8½	0 7 8½

realized. The other is managed by a committee of English gentlemen in Midnapur, and is attended by poorer boys than those who attend the Government school; the masters being also very inferior to those employed therein.

The income of the whole of the higher schools during the year was £160 in excess of the expenditure. This was due in some degree to good fortune in the receipts at Tamluk, the contractor for the schoolhouse having very liberally made over to the School Committee all the profits that he made in building the house. The committee is an active one, and seems to be fertile in devices for raising an income. Part of the money now at the credit of the school has been lent to a Rájá at a high rate of interest, on the security of his *zamindari*; part has been invested in a small apothecary's shop, which pays well, and is said to do a great deal of good besides; and part has been invested in stamped paper, which is sold at a profit, and brings in a decent income to the school. It is to be noticed that the average daily attendance during 1871-72 is far below the number on the rolls on the last day of the year. This is in a great measure due to the fact that the higher class schools were in a very prosperous state at the end of the year. During the year I have inspected all these schools, except that supported by the Rájá of Mahishádal. The Government school is an excellent one; the other two which I inspected are fair schools. Five boys out of seven from the Midnapur Government Schools passed the University Entrance Examination in the second grade, two of the number gaining scholarships; one other lad passed in three subjects out of four. From the other English school at Midnapur, one boy passed in the third division. All the lads from Tamluk last year were plucked, and none appeared from Mahishádal. This school has only been open two or three years, and the lads have hardly had time to work up to the standard. In the higher class schools, there were at the close of the year, 491 Hindus, 27 Muhammadans, and 5 Christians. Classified according to social status, 15 of the pupils belonged to the upper, 463 to the middle, and 45 to the lower classes. In the Government, Aided, and Unaided higher class schools, the total cost for the year for educating each pupil was £3, 1s. 11½d., £5, 8s. 8½d., and £2, 14s. 7½d. respectively; the cost to Government for each pupil in the Government School being £1, 1s. 10½d., and for those in the Tamluk Aided School, £1, os. 2½d.

MIDDLE CLASS ENGLISH SCHOOLS.—‘There is no Government school of this class in the District, but 17 such schools are aided ; and there is also an unaided school, the latter having been opened in the hope that aid would soon be given by Government. If I look at these schools solely as respects the amount of instruction imparted, I may say that two of them (those at Contai and Pánchkurá) are excellent ; that four others are good, seven fair, four moderate, and one (that at Manglápota) bad. Looking at them with reference to their management and their local finances, I consider that nine of them are excellent or good, seven fair, and two (those at Chhatraganj and Kádra) are very indifferent. It is strange that the three worst schools of this class are all in the north of the District, in the Garhbetá Subdivision. The unsatisfactory condition of the Kádra and Manglápota schools is in a great measure due to a late change in the Subdivisional officer, and to the fact that the past and present officer held diametrically opposite views as to the way in which Government should act in the matter of education. The unsatisfactory state of the finances at Chhatraganj is due to the transfer of the *samindári* court from that place, and also to the want of active assistance on the part of the Subdivisional officer. It is worthy of remark, that though Jhargáon is a very unfavourable field for an educationalist, it is the site of a fairly prosperous school, which entirely owes its stability to the interest taken in it by the Rájá, who, though himself an illiterate man, compels his clerks, retainers, and servants to send their boys to his school, and encourages the *mandals* of the villages in his *samindári* to send their sons to reside at Jhargáon for the purpose of being able to attend. He has also shown a good example by sending his grandson to the school, where he studies with the children of the Rájá’s tenants. Besides Jhargáon, the schools at Manglápota, Sarbáriá, Ranguá, and Nárayangarh depend entirely for their support upon single individuals. In all the other schools there are a number of petty subscribers. During the year, I visited the Chhatraganj, Manglápota, Garhbetá, Balihárpur, Contai, Dántun, Ranguá, and Nárayangarh schools. In the middle class English schools there were, at the close of the year, 826 Hindu, 30 Muhammadan, and 8 Christian pupils, of whom 6 belonged to the upper, 483 to the middle, and 375 to the lower classes of society.

MIDDLE CLASS VERNACULAR SCHOOLS.—‘There are seven Government and twenty-six aided schools of this class in Midnapur.

Of the seven Government schools, four are real model schools ; the other three are situated in out-of-the-way places, where there is little or no demand for education. One of these latter, in the south of the District, is doing well ; the two others, in the extreme west, have not as yet succeeded in exciting much desire for education amongst the people living in their neighbourhood. In the excellent vernacular school in the town of Midnapur, the pupils paid as fees last year £122, 6s. I find that in only two other vernacular schools in Bengal there is collected annually upwards of £100 a year. In one of those schools (in Calcutta), about £600 are annually collected ; the other is at Maimansinh, where the collections are about as much as at Midnapur. Next in fees come Gowhátti (Gauháti) (with £90) and Sibságar (with £80 annually). No other school collects as much as £60. Half of the *aided* vernacular schools are in a *very* satisfactory condition. In the great majority of others, whilst the instruction given is good, the management and financial arrangements are only fair, or *vice versa*. In one case (at Páthrá) I class the school in each respect as fair only ; and in that of Gobardhanpur, against each head I would put moderate only ; the other two are new schools, which promise well. In the Mahápál and Tilantopára schools, almost the whole expenditure has been in each case borne by one wealthy individual ; in the other schools, many gentlemen of the middle classes have contributed small sums. During the year I visited, besides the schools in the *sadr* station, those at Anandpur and Tamluk. In the middle class vernacular schools there were, at the close of the year, 1595 Hindus and 47 Muhammadans, of whom 2 belonged to the higher, 852 to the middle, and 788 to the lower classes. In the Government vernacular schools, the education of each pupil cost 17s. 2d. in 1871-72, whilst the charge to the State for each was 7s. In the aided schools, the total cost, and the proportion borne by the State, were respectively 16s. 7d. and 7s. 1d. At the vernacular scholarship examination, two four-year scholarships were gained by pupils from Government schools, whilst five went to those from aided schools ; Government schools gained five one-year scholarships, whilst aided schools gained four only. During the year under review, the improvement of the existing middle class schools has occupied a considerable portion of the time of myself and my deputies, and I think our efforts have been successful in improving their condition. On my recommendation, grants were withdrawn

from three schools whose finances were in an unsatisfactory condition ; and this will lead others to be more careful, lest they should share the same fate.

PRIMARY SCHOOLS.—‘ Only two schools of this class under native managers, viz. a workman’s night-school at Midnapur, and a school at Parmánandpur, are aided under the Grant-in-Aid Rules ; but the American Baptist Mission has forty-two schools amongst the Santáls, of which Government divides the expense with the Mission, share and share alike. Besides these, there are 162 improved day *páthsálas*, and 8 night *páthsálas*. In these village schools it was supposed that the teachers would get from their pupils about 10s. a month ; but, for reasons which I have entered into elsewhere, they hardly get half that amount. It was decided that Government, to bear a moiety of the expense, should give each man 10s. a month so long as he taught a school satisfactorily ; it would be cutting inches off the stick at both ends, if Government cut down its contribution because a man received less than was expected from the villagers ; so that now nearly two-thirds of the cost of these schools is borne by the State. Early in the year under review, feeling it absolutely necessary to repress the tendency which these schools had to work up to a standard too high for them, I informed my deputies here as well as elsewhere, that as the primary object of a village school was to teach the boys to write a good hand, to read written documents with facility, and to be versed in mental arithmetic and accounts, as well as in the composition of letters and deeds, no village teacher was to be allowed to teach his boys the course used in a middle class vernacular school unless three-fourths of the guardians of the boys stated that they wished such a course introduced, and that they did not wish for anything *at all resembling* the old class of *páthsálas* under a *guru-mahásay* or village schoolmaster. I believe that by this means these schools have been kept down to what they were intended to be more than in previous years, but it is a matter requiring careful attention. Of the students attending these schools in 1871-72, 4789 were Hindus, 193 were Muhammadans, whilst 689 were either Santáls or Christians, of whom 1266 belonged to the middle and 4405 to the lower classes. In the total 214 aided primary schools, attended by 5671 pupils, the total cost of each scholar was 6s. 0½d., of which the State contributed rather more than half, or 3s. 6½d. per head.

NORMAL SCHOOLS.—‘ There are two schools in Midnapur District

whose object it is to train teachers for our vernacular schools : that supported by Government, trains for Bengali schools ; and that supported partly by Government and partly by the American Baptist Mission, trains for Santál schools. The teachers in the former school were wholly occupied for some years in turning out trained teachers for primary schools, but during the last year a class has also been opened corresponding to the lowest class in a higher-grade Normal School. This has been done without any extra charge to Government. Those studying with the object of becoming village teachers receive from Government (during the year they are so occupied) 10s. a month. Up to the last year, *every lad* who passed the final examination took charge of a village school and became entitled to 10s. a month from Government so long as he gave satisfaction. Last year no funds were available for opening new village schools, and consequently nine lads who passed the examination and gained certificates have not as yet obtained stipends ; but it is almost certain that the usual 10s. a month will soon be forthcoming for them. Forty-three other lads also passed, to whom Government was under an undertaking to pay the regular allowance. Of their number, 38 have either opened or are engaged in opening schools in the District. Since this school first opened in 1865, 239 lads have gained certificates, and all opened village schools, either in this or one of the neighbouring Districts, with the exception of the nine men above referred to. Fifty-one lads from the school appeared this year at the Pass Examination for all the training schools in Bengal ; fifty of the number passed,—a result which testifies to the ability and successful work of the teachers of the school. In the Santál Normal School it was at first necessary to begin to instruct the students from the very alphabet. As a consequence, for some time it was not possible for men educated there to open village schools ; but it has begun sending out a supply, and 12 of the 42 teachers now employed in the Santál villages have gone out from this Normal School. At first it was necessary to employ any teachers that could be procured ; but now a rule has been made, that no man is to be placed in charge of a school who has not gone through a course of training in the Normal School. Of the old class of teachers employed, two were decidedly superior to the others ; they lived in villages near the borders of civilisation, and had themselves attended indigenous Bengali *páthsálds*. Twelve of *their* pupils are now employed as Santál schoolmasters, and some

of the number are quite equal, if not superior, to their former instructors. Twice a year all the Santál teachers are called together to a village centrally situated about twenty miles from Midnapur, and are examined by the Baptist Missionary. I make a point of attending this gathering whenever possible, and taking my share in the examination. The results on each occasion are carefully tabulated; and it is pleasant to be able to say, that whilst the course is slightly extended on each occasion, the marks gained have been also decidedly higher half-year after half-year, and that there is a great desire amongst the younger teachers to gain higher marks than those gained by the more experienced. Already several have passed in the race one of the two teachers who were for some time the best, and are pressing close upon the footsteps of the other, who is obliged himself to study hard to keep his position. Besides reading, writing, and spelling, all that they at present learn is an easy arithmetic, or rather collection of Bengali tables, called *Dhárá páth*; the very elements of grammar (the formation of compound letters and words), and the definitions of the various terms used in geography.

‘Of the two Normal Schools, the Government one is much the superior. I lately enrolled, among the pupils of this school, the most intelligent and most advanced Santál I have ever seen. He has been employed by the Mission as a visitor of their schools, and when trained—as he will understand better what a school ought to be—he will be much more useful than he now is. Of the students attending the Government school, all were Hindus. Since the establishment of this school, one Muhammadan has joined; and though he at first opened a school in a village chiefly inhabited by Musalmáns, his pupils have by degrees left him. Since the year came to an end, a Christian Santál, as already said, has joined the school. In the *aided* Normal School all the students are either Santál or Christian lads. I have inspected both these schools during the year.’ In the Government Normal School, the cost for each pupil in 1871-72 was £7, 8s. 8½d. per head, the whole of which was borne by the State. In the Aided Normal School, the cost of each pupil was £4, 7s. 3¼d., of which Government contributed one half, or £2, 3s. 7½d.

GIRLS' SCHOOLS.—‘There are three aided girls' schools, and one Aided *Zanánd* Association, from which I have received returns; but I am also aware of two other girls' schools in the town of Midnapur,—one supported by the residents in the station, the other

kept up by the Baptist Mission for orphan girls (principally) taken in by them on the occasion of the famine of 1866. There is also a private girls' school at Jaikrishnapur, in the north-east of the District, attended by 22 girls. Of these three latter schools I have received no statistics ; but they are attended by 70 or 80 girls. The three aided girls' schools managed by native gentlemen, and situated in the towns of Midnapur, Tamluk, and the village of Chándpur, are attended by 72 girls ; towards the cost of their education Government contributed during the year £37, 4s. od., whilst subscriptions in their support to the extent of £43, 18s. od. were raised. Girls in the Mufassal will not pay schooling fees, but their parents often subscribe to the school. Of the 72 girls, 60 belong to the middle, and 12 to the lower classes of society. I have visited two of the three schools.

' During the year, the ladies connected with the Midnapur Baptist Mission and their assistants taught, on an average, 78 native ladies in *zanánds* in the town. At the close of the year there were only 60 under instruction. The falling off was due to the fact that a native lady in the town joined the Church of England ; this, of course, led to the closure of many doors against Christian teachers. In the village schools there are 106 girls under instruction ; last year there were 185. The falling off is due to the fact that teachers used to be paid for every girl who attended ; now they are only paid for every girl who can read easy sentences, and write on the palm leaf.' In the three aided girls' schools, the cost of each pupil was £1, 2s. 6d., of which 10s. 4d. was contributed by Government. In the Aided *Zanána* Association, the total cost, and the proportion borne by the State, were £1, 17s. 11½d. and 12s. respectively.

UNINSPECTED INDIGENOUS SCHOOLS.—' The police return 1729 indigenous schools in the District, entirely unconnected with Government, and attended by 19,174 students. From inquiries on the subject, it is believed that about 100 similar schools have been closed. The people cannot understand the reason for such inquiries. In their opinion, inquiry precedes taxation, and therefore some of the teachers of the smaller schools have closed them, through fear of being taxed. Of course these men have attempted to hide the fact that they ever taught a school ; they cannot therefore be found and re-assured. It will be seen that each teacher has, on an average, 11 pupils only ; the largest (average) schools are in *thána* Midnapur. As might be expected, here the schools are attended by, on an

average, 16·5 boys. The *thánds* in which the schools are next largest are Dáspur in the north-east, Patáspur in the south-east, Garhbetá in the north, Tamluk and Maslandpur in the east of the District. In all these *thánds* the average number of pupils in each *páthsálla* is above 14. The smallest attendance is in *thánds* Gopfbalabhpur and Jhargáon, in the extreme west of the District : there, there are only respectively 5 and 6 pupils for each teacher. In Raghunáthpur, Contai, Egrá, Sutahátí, Dántun, and Bhagwánpur, all in the south-east, and in Náráyangarh, just south of Midnapur, the *páthsállás* are attended by less than ten boys each. On the whole, I am inclined to think the return fairly correct, as great care was taken. In every case is given the name of the teacher and the number of his pupils, whilst the actual numbers agree *nearly* with the estimates of my deputies ; but I do not think it can be wholly relied on, since in *thána* Patáspur we find 74 *páthsállás*, attended on an average by 15 pupils, whilst in the adjoining *thána* (Egrá) we find only 23 *páthsállás*, attended on an average by only 8 pupils.

‘On the whole, it appears that in Midnapur there are about 28,000 children under instruction, of whom about one-third are in schools regularly visited by officers of the Educational Department.

‘In each of the jails at Midnapur elementary instruction is given to all those who wish for it, the teachers also being prisoners ; in the Central Jail fifty, and in the District Jail thirty men, meet between 6 and 8 o'clock every evening. The number who attend school is larger in proportion to the number of prisoners in the District Jail. The Superintendent explains this by the fact that the prisoners are not so hard worked as are those in the Central Jail. In my opinion, it would be good if every prisoner was obliged to attend school.’

POSTAL STATISTICS.—There has been a marked increase in the use of the Post Office within the last few years. Since 1861-62, the number of letters, newspapers, parcels, and books received at the Midnapur Post Office has very nearly doubled, the total having increased from 80,435 in 1861-62 to 155,916 in 1870-71. The number despatched was 71,362 in 1861-62, and 90,987 in 1865-66. I have not yet succeeded in obtaining the number of letters despatched in 1870-71. The postal receipts increased from £632, 15s. 5d. in 1861-62, to £1479, 7s. 10d. in 1870-71, exclusive of £347, os. 6d., receipts from sale of stamps for official correspondence, which in previous years were included with the general receipts, making a total revenue from the Midnapur Post Office in

186 STATISTICAL ACCOUNT OF MIDNAPUR.

1870-71 of £1826, 8s. 4d. On the expenditure side of the account, the charges of the Post Office have increased from £1646, os. 9d. in 1861-62, to £2427, 10s. 9d. in 1870-71. The following table, showing the number of letters, newspapers, etc., received at and despatched from the Midnapur Post Office, together with the postal receipts and expenditure for the years 1861-62, 1865-66, and 1870-71, is compiled from a Return furnished to me by the Director-General of Post Offices :—

POSTAL STATISTICS OF MIDNAPUR DISTRICT, FOR THE YEARS
1861-62, 1865-66, AND 1870-71.

	1861-62.		1865-66.		1870-71.	
	Received.	Des- patched.	Received.	Des- patched.	Received.	Des- patched.
Letters,	68,920	69,144	87,199	87,990	139,078	Materials not received for this Column.
Newspapers,	7,515	968	9,126	1,134	11,559	
Parcels,	1,607	1,122	2,189	1,715	1,128	
Books,	2,393	128	1,364	148	4,151	
Total,	80,435	71,362	99,878	90,987	155,916	...
Sale of postage stamps,	£293 0 7		£603 15 8		£786 2 11	
Cash collections, . .	339 14 10		287 5 10		693 4 11	
Total receipts, . . .	632 15 5		891 1 6		1479 7 10*	
Total expenditure,	1646 0 9		1516 15 7		2427 10 9	

* Exclusive of receipts from sale of service stamps for official correspondence, which in 1870-71 amounted to £347, os. 6d., making a total of £1826, 8s. 4d. Service stamps were first introduced in 1866.

POLITICAL DIVISIONS. — For administrative purposes, Midnapur District is divided into the following four Subdivisions. The population Statistics are taken from the Appendix, Statements 1 A and 1 B, to the Census Report of 1872. The Administrative Statistics are taken from the special report furnished to me by the Collector, with the revised returns obtained through the Bengal Government.

THE SADR OR HEADQUARTERS SUBDIVISION contains a total area of 2962 square miles, with 7765 villages or townships, 232,470 houses: total population, 1,276,388, of whom 1,129,446, or 88·5 per cent., are Hindus; 71,771, or 5·6 per cent., are Muhammadans; 365 are Christians; and 74,806, or 5·9 per cent., are people belonging to

other denominations not classified separately in the Census Report. Proportion of males of all religions in the total Subdivisional population, 49·4 per cent. Average density of the population, 431 persons to the square mile; average number of villages per square mile, 2·62; average number of persons per village or township, 164; average number of houses per square mile, 78; average number of inmates per house, 5·5. The Subdivision comprises the eleven police circles (*thánás*) of Midnapur, Náráyangarh, Dántun, Gopíballabhpur, Jhárágáon, Bhímpur, Sálbaní, Kespur, Dáspur, Debrá, and Sabang. In 1870-71 it contained 8 Civil and 7 Magisterial and Revenue Courts. The regular police consisted of 47 officers and 223 men—total, 270; a rural police or village watch (*chaukidárs*) of 2650 men; and the Midnapur town police, of 4 officers and 75 men. The separate cost of Subdivisional Administration in 1870-71 is thus returned by the Collector:—Cost of Civil Administration, £7597, 8s. od.; cost of Magisterial and Revenue Administration, £5963, 12s. od.; cost of *chaukidárs* paid by the villagers, £3447, 6s. od.; cost of *chaukidárs* paid out of the *khás mahal* fund, or by estates under the direct management of Government, £249, 12s. od.; cost of town police, £512, 8s. od.; total cost of Subdivisional Administration, £17,770, 6s. od. The town and station of Midnapur, the most important place in the Subdivision, was formally declared the Headquarters of the District on the 22d September 1783.

TAMLUK SUBDIVISION is supposed to have been created in November 1851. It contains an area of 621 square miles, with 1522 villages or townships, 72,438 houses, and a total population of 467,817, of whom 424,075, or 90·7 per cent., are Hindus; 43,317, or 9·3 per cent., Muhammadans; 209 Christians; and 216 of other denominations not separately classified. Proportion of males of all religions in the total Subdivisional population, 48·9. Average density of population, 753 per square mile; average number of villages per square mile, 2·45; average number of persons per village or township, 307; average number of houses per square mile, 117; average number of inmates per house, 6·5. The Subdivision comprises the five police circles (*thánás*) of Tamluk, Pánchkurá, Maslandpur, Sutáhátá, and Nandigáon. In 1870-71 it contained one Magisterial and Revenue Court; a regular police force consisting of 8 officers and 142 men—total, 150; and a village watch consisting of 1599 men. The Collector returns the total separate cost of Subdivisional Administration at £4523, 4s. od., including the

value of about 515 acres of *jágr* land, and which is set down at £449, 16s. 4d. See also *ante*, 62-67; *post*, 218; and my *Orissa*, vol. i.

CONTAI (KANTHI) SUBDIVISION.—Created on the 1st January 1852. Contains a total area of 850 square miles, with 2201 villages or townships, 77,626 houses, and a total population of 442,272 souls, of whom 420,559, or 95·1 per cent., are Hindus; 21,445, or 4·8, are Muhammadans; 21 Christians; and 247, or ·05 per cent., of other denominations not classified. Proportion of males of all religions in the total Subdivisional population, 50·6 per cent. Average density of population, 520 per square mile; average number of villages per square mile, 2·59; average number of persons per village or township, 201; average number of houses per square mile, 91; average number of inmates per house, 5·7. The Subdivision comprises the six police circles (*thánds*) of Contai, Raghunáthpur, Egrá, Khejiri (Kedgerie), Patáspur, and Bhagwánpur. In 1871 it contained 1 Magisterial and Revenue Court; a regular police force consisting of 35 officers and 157 men—total, 192; and a rural police or village watch of 1552 men. The Collector returns the cost of the separate Administration of the Subdivision, in 1870-71, to be as follows:—Salary of Subdivisional officer, £360; salaries of establishment, £206, 8s. od.; cost of police, £2486, 10s. od.; cost of *chaukidárs* (exclusive of *páiks*), £3552; total cost of Subdivisional Administration, £6604, 18s. od., exclusive of the yearly value of the *chákrán* or service land, held rent-free by the *páiks*.

GARBETA SUBDIVISION.—Supposed to have been created in 1850. It contains a total area of 649 square miles, with 1474 villages or townships, 63,511 houses, and a total population of 354,486, of whom 311,488, or 87·9 per cent., are Hindus; 20,514, or 5·8 per cent., are Muhammadans; 18 are Christians; and 22,466, or 6·3 per cent., belong to other denominations not classified. Proportion of males of all religions in the total Subdivisional population, 49·4. Average density of population, 546 per square mile; average number of villages per square mile, 2·27; average number of inhabitants per village or township, 240; average number of houses per square mile, 98; average number of inmates per house, 5·6. The Subdivision comprises the three police circles (*thánds*) of Garbetá, Chandrakoná, and Ghátál. In 1870-71 it contained one Magisterial and Revenue Court; with a regular police force consisting of 11 officers and 56 men—total, 67; and 420 *chaukidárs*, or village police. The Collector returned the cost of Subdivisional

Administration in 1870-71 as under:—Salary of Subdivisional officers, £475, 2s. od.; salaries of establishment, £163, 12s. od.; cost of regular police, £877, 6s. od. Total cost of Subdivisional Administration in 1870-71, £1516, 0s. od., exclusive of the cost of the village police, who are paid by grants of land.

NUMBER OF VILLAGES.—In the year 1790, and again in 1800, the number of villages in Midnapur District was returned at 10,739. In 1870, the Collector, in his report to me, estimated them at 11,468; and in 1872 they were definitely ascertained by the Census to amount to 12,962; average population, 196 souls.

FISCAL DIVISIONS.—I have compiled the following list of the 109 Fiscal Divisions in Midnapur District, partly from Mr. Collector H. V. Bayley's valuable ms. Report on Midnapur, dated January 1852; partly from a Report by Mr. J. S. Torrens, dated April 1849; and partly from the Board of Revenue's *Parganá* Statistics, which disclose wide and irreconcilable discrepancies. The area, land revenue, number of estates, chief villages, etc., in each village are taken principally from the Board of Revenue's Return, and partly from Mr. Torrens' Report. Owing to the inherent badness of the Survey mentioned at page 106, they must be received with great caution, and merely as the best I can obtain. All other particulars are condensed from Mr. H. V. Bayley's ms. Report. I have endeavoured to distinguish between the permanently settled and temporarily settled estates, but in some cases have been unable to do so. I have also brought my list into conformity with any recent transfers which have been reported to me, or which are shown on the latest maps furnished to me by the Surveyor-General. But the unstable character of *parganá* boundaries opens a constant source of error.

(1) AGRACHAUR comprises an area of 21,260 acres, or 33·22 square miles. It contains 35 estates, with 129 villages; pays a total land revenue of £1491, 2s. od., the average rate of assessment being 1s. 4½d.; situated within the jurisdiction of the Subordinate Judge's Court at Dántun; estimated population, 17,185. It is a permanently settled *parganá*, the chief product being rice and sugar-cane. The two principal villages are Agrá and Nagwán, the latter of which was formerly a Joint Magistrate's Station, with ten subordinate police circles (*thánás*). A sacred tank is situated near the village, in which is said to be an image of Siva, thirty feet under water. The place is much revered, the tank having the reputa-

estimated population, 20,245. Mr. Bayley states this was one of three *pargands* settled at the time of the Decennial Settlement, with one Bír Prasád Dás, the *Sadr chauthri* or chief collecting officer of the District. In virtue of his office, he held service-lands (*Nánkár*), which were continued to him at half rental at the time of the Decennial Settlement. He died leaving no son, and disputes arose between his two wives, which led to the sale of the property in 1837. Government purchased the estate, and a Settlement was made under Regulation VII. of 1822. Bír Prasád Chauthri is said to have been a great sportsman, and to have reserved his Balrámpur estate as a preserve for game. Another story relates how, as a punishment for the abduction of a lady of rank in Midnapur town, the then Magistrate sentenced the Chauthri to corporal punishment of thirty stripes; and that the man who had to inflict it received from the latter a reward of ten *bighás* of rent-free land for every stripe inflicted, making three hundred *bighás*, or one hundred acres in all, in consideration of his laying on the stripes so lightly as to leave neither pain nor mark, while the sound of the blow was so made as to appear that it was given with full force. This grant of land was resumed by the Government at the time of the Settlement (about 1840), and settled with the rent-free holder at half rates. Balrámpur *parganá* is high land, exposed to drought, and requires artificial irrigation. The chief products are rice, indigo, and oil-seeds. The Settlement of the *parganá* expired in 1869, and a re-settlement is now (1873) in progress.

(12) BALIJORA: area, 7091 acres, or 11·08 square miles; 21 estates; 48 villages; land revenue in 1849, £578, 15s. od., the average rate of assessment being 1s. 6¼d. an acre; the land revenue of the present *parganá*, according to the Board of Revenue's Statistics, is only £68, 14s. od., or an average rate of 2¼d. an acre; Subdivisional Court at Nimál; estimated population, 4340. The *parganá* is temporarily settled; the Settlement expired in 1872, and a new one is now in process of being formed.

(13) BALSITA TAPPA: area, 3288 acres, or 5·14 square miles; 4 estates; 42 villages; land revenue, £653, 2s. od.; average rate of assessment, 4s. an acre; principal village, Bálsitá; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 1035. The *parganá* is permanently settled.

(14) BARAICHAUR: area, 15,215 acres, or 23·77 square miles; 30 estates; 135 villages; land revenue, £884, 10s. od., the average

rate of assessment being 1s. 1½d. per acre; Subordinate Judge's Court at Dántun; estimated population, 8515. The principal product of the *parganá*, which is permanently settled, is rice; but the land is low, and exposed to the risk of inundation.

(15) BARAJIT TAPPA: area, 4334 acres, or 6·77 square miles; 1 estate; 23 villages; land revenue, £69, 6s. od., or an average rate of assessment of 3¾d. an acre; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 2255.

(16) BARDA: area, 52,846 acres, or 82·57 square miles; 29 estates; land revenue, £5509, 16s. od., or an average rate of assessment of 2s. 1d. per acre; Subordinate Judge's Court at Ghátál, which is the principal village of the *parganá*; estimated population, 67,216. The *parganá* is permanently settled.

(17) BATITAKI: area, 8794 acres, or 13·74 square miles; 31 estates; 319 villages; land revenue in 1849, £1251, 2s. od.; land revenue of present *parganá*, according to the Board of Revenue's Statistics, £1077, 18s. od., or an average rate of assessment of 2s. 10d. an acre; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 5000. Previous to the British accession, this *parganá* belonged to the Náráyangarh family, and subsequently to the Chaudhrís of Khándár. But at the time of the Decennial Settlement it was in the possession of small holders, with whom it was settled. The ten years' Settlement was afterwards made permanent.

(18) BAZI ZAMIN BAZIAFTI: area, 1224 acres, or 1·91 square miles; 4 estates; 139 villages; land revenue in 1849, £159, 7s. od., or an average rate of assessment of 2s. 7d. an acre; land revenue of present *parganá*, according to the Board of Revenue's Statistics, £64, 8s. od., or an average rate of assessment of 1s. 0½d. per acre; estimated population, 1000.

(19) BELABARIA: area, 13,925 acres, or 21·75 square miles; 1 estate; 46 villages; land revenue in 1849, £82, 10s. od., or an average rate of assessment of 1½d. an acre; land revenue of present *parganá*, according to the Board of Revenue's Statistics, £75, 2s. od., or an average rate of assessment of 1¼d. an acre; principal village, Belábáriá; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 8490. A permanently settled *parganá*.

(20) BHUIYAMUTA: area, 10,200 acres, or 15·93 square miles; 34 estates; 84 villages; land revenue in 1849, £2510, 1s. od., or an average rate of assessment of 4s. 1d. an acre; land revenue of present

parganá, according to the Board of Revenue's Statistics, £2440, or an average rate of assessment of 4s. 9½d. per acre; principal village, Bhuiyámután; Subordinate Judge's Court at Dántun; estimated population, 7880. The *parganá*, which is permanently settled, is a very fertile one. It produces rice, betel-leaf (*pán*), areca-nuts (*supári*), cocoa-nuts, sugar-cane, and second crops generally on the high lands. Mr. Bayley, in his ms. Report, states that it is considered a very remunerative *parganá*, and that the purchase of land in it is a favourite investment of capital. It is held, and has been so from a period anterior to our rule, by small proprietors. Some of the largest estates within it have been purchased by the Majnámután family. A fresh-water canal, used for irrigation purposes, also runs through the *parganá*.

(21) BIRKUL: area, 22,632 acres, or 35·36 square miles; 24 estates; 97 villages; land revenue in 1849, £2073, 7s. od., or an average rate of assessment of 1s. 10d. an acre; the Board of Revenue's Statistics return the land revenue of the present *parganá* at £2063, os., or an average assessment of 1s. 9½d. per acre; principal village, Birkul; Subordinate Judge's Court at Dántun; estimated population, 11,890. This *parganá* is stated, in a Report by Mr. Collector Hewett, dated 15th June 1787, to have been formerly dependent upon the Orissa Tributary State of Morbhanj, the Rájá of which managed the estate and collected its revenues through *sardárs*. The cultivators revolted, and established one Ságar Rái in the *zamindárlí* of Birkul about 1500 A.D. Jadu Rái, his son, held Birkul and Kákrá *parganá*s for 30 years; his son, Purúshottam Rái, held the same for 36 years; and his son Narhari Rái succeeded for 60 years. This latter made his eldest son *zamindár* of Birkul; his second son, *chaudhrí* or accountant of his property; and his third, *zamindár* of Kákrá. In 1760, one Sobpur (Qy.) Rái purchased a nine *ánás* or nine-sixteenths share of Birkul. In 1852 Mr. Bayley stated that the *parganá* was still nominally divided into a nine *ánás* and a seven *ánás* share, but that in reality these shares were subdivided into numerous small tenures by sales, execution of decrees, foreclosure of mortgages, etc. At the time of the Decennial Settlement, Birkul is said to have been much under jungle, and very backward in cultivation. Since then it has been well and profitably cultivated, and in 1852 was considered a good *parganá* for buying property in. The produce consists of rice, pulses, oil-seeds, cotton, cocoa-nuts, and vegetables.

(22) BISIAN OR PARBISIAN : area, 26,569 acres, or 41·51 square miles ; 39 estates ; 120 villages ; land revenue in 1849, £1985, 10s. 0d., or an average assessment of 1s. 6d. an acre ; the revenue of the present *parganá* is returned by the Board of Revenue's Statistics at only £299, 16s. 0d. ; Subordinate Judge's Court at Nimál ; estimated population, 14,040. A temporarily settled *parganá* ; the Settlement expired in 1872, and a fresh one is now (1873) in progress of formation.

(23) BRAHMANBHUM : area, 61,574 acres, or 96·21 square miles ; 23 estates ; 572 villages ; land revenue, £2545, 16s. 0d., or an average assessment of 10d. an acre ; principal villages, Amanpur and Maumáni ; Subordinate Judge's Court at Bagrí ; estimated population, 38,475. A permanently settled *parganá*.

(24) CHAK ISMAILPUR : area, 11,818 acres, or 18·46 square miles ; 5 estates ; 60 villages ; land revenue, £525, 16s. 0d. ; average rate of assessment, 10½d. an acre ; Subordinate Judge's Court at Dántun ; estimated population, 4475. The principal produce of the *parganá*, which is permanently settled, is rice and sugar-cane ; the land, however, is low, and exposed to inundation.

(25) CHANDRAKONA : area, 10,227 acres, or 15·98 square miles ; 107 estates ; land revenue, £8974, 6s. ; average rate of assessment, 17s. 6½d. per acre ; principal towns, Chandrakoná and Ghátál ; Subordinate Judge's Court at Ghátál. The *parganá* is permanently settled, and contains an estimated population of 31,272 souls.

(26) CHIARA : area, 24,993 acres, or 39·05 square miles ; 2 estates ; 76 villages ; land revenue, £35, 12s. 0d. ; average rate of assessment, ¼d. an acre ; principal village, Chiárá ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 7335. The *parganá* is permanently settled.

(27) CHITWA : area, 68,413 acres, or 106·89 square miles ; 74 estates ; 712 villages ; land revenue in 1849, £13,800, 16s. 0d. ; land revenue of present *parganá*, according to the Board of Revenue's Statistics, £14,144, 8s. 0d. ; average rate of assessment, 4s. 1¼d. per acre ; principal villages, Dáspur and Rájnapur ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 94,765. Mr. Bayley states that *parganá* Chitwá was originally a part of the Bardwán District, and was settled with the Bardwán Rájá at the time of the Decennial Settlement. It was transferred to Midnapur in 1810. In 1852 it consisted of seven estates or

mahals, one of which was the property of the Rájá of Bardwán, who let it out in *patní*; two belonged to the Bardwán Rájá's family priests and their descendants; another, and a very valuable one, to the Midnapur family; and one to a Mr. Abbott. Rice, sugar, turmeric, mulberry, mustard, and vegetables are the principal products of the *parganá*, which is sometimes exposed to inundation, but is tolerably secure from drought.

(28) DAKSHINMAL: area, 4014 acres, or 6·27 square miles; 3 estates; 32 villages; land revenue in 1849, £368, 7s. od., or an average rate of assessment of 1s. 10d. an acre; land revenue of the present *parganá*, according to the Board of Revenue's Statistics, £683, 10s. od.; Subordinate Judge's Court at Nimál; estimated population, 2705. The *parganá* is permanently settled.

(29) DANTUN: area, 24,980 acres, or 39·03 square miles; 34 estates; 337 villages; land revenue, £1090, 12s. od.; average rate of assessment, 10½d. an acre; Subordinate Judge's Court at Dántun, which is also the principal village; estimated population, 16,250. Mr. Bayley states that, in 1852, this *parganá*, which is permanently settled, was in the possession of one Abhirám Chaudhrí. Of this man it is said, that although many debts had been decreed against him and his family, and execution had been ordered to issue against his landed property, no creditor could find any lands for seizure; the cultivators having such a gratitude for their landlord's kindness to them, that they all took an oath that their master's villages were not his property. In his original bonds, Abhirám, when mortgaging his estates, had passed off the villages included in them under false names, so as to prevent their identification. The fraud was so successful, that Mr. Bayley, in 1852, stated that no property could be identified, nor a decree carried out; and instanced a case of one creditor who had been unable to put into execution a decree obtained eleven years before. Dántun is mentioned as a considerable mart for the sale of a description of cloth of mixed silk and cotton, made in the Tributary State of Morbhanj, and brought by brokers to Dántun, where it is sold. The principal product of the *parganá* is rice of good quality, and sugar-cane; the lands, however, lie low, and are exposed to occasional inundations.

(30) DATTAKHARUI: area, 2600 acres, or 4·06 square miles; 1 estate; 7 villages; land revenue in 1849, £242, 9s. od., the average rate of assessment being 1s. 10½d. an acre; land revenue of the

present *parganá*, according to the Board of Revenue's Statistics, £1, 2s. od.; Subordinate Judge's Courts at Dántun and Nimál; estimated population, 795. The *parganá* is temporarily settled; the last Settlement expired in 1872, and a new one is now (1873) in course of formation.

(31) DATTAMUTA: area, 9807 acres, or 15·32 square miles; 23 estates; 66 villages; land revenue, £801, 6s. od.; average rate of assessment, 1s. 7½d. an acre; Subordinate Judge's Court at Dántun; estimated population, 5875. The chief products of the *parganá*, which is permanently settled, are rice and sugar-cane; the land lies low, and is exposed to inundation from the Káliághái river.

(32) DHARENDA TAPPA: area, 23,474 acres, or 36·68 square miles; 20 estates; 158 villages; land revenue, £466, 12s. od.; average rate of assessment, 4½d. per acre; principal villages, Dharendá and Málanchá; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 8545.

(33) DHENKIA BAZAR: area included with that of Midnapur or Bhanjbhúm *parganá*, in the Board of Revenue's Statistics. Mr. Torrens' Report in 1849 returns the separate area of Dhenkiá Bázár at 16,078 acres, or 25·12 square miles; 12 estates; 126 villages; land revenue, £35, 4s. od.; principal village, Manibgarh; estimated population, 10,830.

(34) DIGPARUI: area, 15,666 acres, or 24·48 square miles; 2 estates; 69 villages; land revenue, £14, 4s. od.; average rate of assessment, one farthing per acre; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 5576. The *parganá* is permanently settled, and is described as a very valuable property.

(35) DIPKIARCHAND: area, 14,273 acres, or 22·30 square miles; 1 estate; 66 villages; land revenue, £94, 8s. od.; average rate of assessment, 1½d. per acre; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 8435. The *parganá* is permanently settled.

(36) DORO DUMNAN: area, 45,282 acres, or 70·75 square miles; 50 estates; 258 villages; land revenue in 1849, £4729, 1s. od., or an average assessment of 2s. 1d. an acre; land revenue of present *parganá*, according to the Board of Revenue's Statistics, £426, 14s. od.; principal village, Kukráhátí; Subordinate Judge's Court at the Subdivisional town of Tamluk; estimated population, 29,435.

The *parganá* is temporarily settled; the last thirty years' Settlement expired in 1872, and a fresh one is now (1873) in progress of formation.

(37) ERANCH: area, 43,971 acres, or 68·70 square miles; 48 estates; 61 villages; land revenue in 1849, £3390, 9s. od., or an average assessment of 1s. 6½d. an acre;—the Board of Revenue's Statistics, however, only return the revenue of the present *parganá* at £355, 8s. od.;—principal villages, Heriá and Lakshmi; Subordinate Judge's Courts at Nimál and Dántun; estimated population, 18,685. A temporarily settled estate: the last Settlement expired in 1872, and a new one is now in course of formation.

(38) GAGNAPUR: area, 3372 acres, or 5·27 square miles; 9 estates; 31 villages; land revenue, £927, 18s. od.; average rate of assessment, 5s. 6d. per acre; principal village, Gágnápur; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 3600. The *parganá* is permanently settled.

(39) GAGNESWAR TAPPA: area, 29,456 acres, or 46·02 square miles; 21 estates; 168 villages; land revenue, £935, os. od.; average rate of assessment, 7½d. per acre; principal village, Kesárf; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 1050. The *parganá* is permanently settled. Mr. Bayley, in 1852, stated that a considerable trade and manufacture of silk was carried on in this *parganá*, which contained eight or nine hundred families of silk-weavers.

(40) GAOMESH: area, 914 acres, or 1·43 square miles; estates included with those of Jalámutá; 1 village; land revenue in 1849, £124, 1s. od., or an average assessment of 2s. 8½d. per acre;—in the Board of Revenue's Statistics, the present land revenue is included with that of Jalámutá;—principal village, Gáomesh; Subordinate Judge's Court at Dántun; estimated population, 515. The *parganá* is temporarily settled; the last Settlement expired in 1872, and a fresh one is now (1873) in course of formation.

(41) GUMAI: area, 8663 acres, or 13·53 square miles; 1 estate; 15 villages; land revenue returned at only 10s. in the Board of Revenue's Statistics; Subordinate Judge's Court at Tamluk; estimated population, 3050. The *parganá* is permanently settled.

(42) GUMGARH: area, 66,396 acres, or 103·74 square miles; 10 estates; 233 villages; land revenue, £139, 6s. od.; average rate of assessment, one halfpenny per acre; principal villages, Nandigáon

and Ránfganj; Subordinate Judge's Court at Nimál; estimated population, 30,920. The *parganá* is permanently settled.

(43) HIJILI KASBA: area, 12,204 acres, or 19'06 square miles; 15 estates; 53 villages; land revenue in 1849, £725, 4s., or an average assessment of 1s. 2½d. per acre; revenue of the present *parganá*, according to the Board of Revenue's Statistics, £74, 4s. od.; no explanation of difference forthcoming; principal village, Khejiri (Kedgerree); Subordinate Judge's Courts at Nimál and Dántun; estimated population, 6245. These figures only refer to the *parganá* of Hijili; but it may be well here to give a brief description of the general revenues and history of the whole Hijili part of Midnapur, which prior to 1836 formed a separate administration of its own. I condense the facts from Mr. Grant's Report on the Revenues of Bengal, dated April 27, 1786, and also from Mr. Bayley's ms. Report on Midnapur. The *Faujddári* (Magistracy) of Hijili, situated on the low western margin of the river Húglí, where it unites with the sea, although only 1098 square miles in extent, was of great importance as an accessible frontier, rich in grain, but still more valuable from its salt manufactures, during the time that Government retained the monopoly of salt-making. It was first dismembered from the Province of Orissa in the reign of Sháh Jahán, and annexed to Bengal. At the death of the Emperor Alamgir in 1707, the *jamá tumári*, or crown rent, of Hijili did not exceed £34,138, derived from 28 *parganá*s, and including the salt estate of Hijili, then rated at only £4356. But at the revised assessment of Jafar Khán in 1728, the *chaklá* or large Fiscal Division of Hijili, including Tamluk, was valued at a net assessment of £47,794, derived from 38 *parganá*s, subdivided into the large estates of Jalámutá, Mahishádal, Tamluk, Sujámutá, and Doro Dumnán. Mr. Grant states that this *Faujddári* or Magistracy 'was made apparently for the purpose of subjecting the whole coast liable to the invasions of the Maghs, to the royal jurisdiction of the Nawára or Admiralty fleet of boats stationed at Dacca.' Land revenue after 1765 returned at £35,193.

The first historical tradition of Hijili only goes back 370 years. It refers to the first Muhammadan ruler of Hijili, one Masnad Alí Sháh, whose memory is still held in high veneration, and whose shrine at the mouth of the Rasúlpur river is visited alike by Musalmáns and Hindus. Masnad Alí is said to have ruled over the whole of Hijili between 1505 and 1546 A.D. A local tradition relates that the territory was obtained for him by his brother,

Sikandrá Pahlwán (literally 'The Mighty Wrestler') by a stratagem. It is also stated that Sikandrá Pahlwán conquered the *parganá*s of Kismat Sibpur and Kismat Patáspur from the Marhattás, and annexed them to his brother's kingdom of Hijili. After Sikandrá's death, Masnad Alí, who was a holy man and no warrior, understanding that the Dehli Emperor had sent an army against him, buried himself alive. Another story is, that he threw himself from a rock into the sea, and was drowned. His son, Bahádur Khán, made his peace with the Emperor, and was regularly confirmed in the possession of the District in 1557 A.D. He was subsequently dispossessed of the estate, about 1564, but regained possession of it ten years later. Upon his death, which occurred in 1584, the two men who had previously caused his deposition, by complaining against him to the Emperor, had influence enough to procure grants of certain *parganá*s, which, with certain trifling alterations in name and boundary, now form the private *zamindáris* of Jalámutá and Majnámutá respectively.

(44) JALAMUTA: area, 32,543 acres, or 50·84 square miles; 7 estates; 131 villages; land revenue in 1849, £2829, 18s. od., or an average assessment of 1s. 9d.; land revenue of the present *parganá*, according to the Board of Revenue's Statistics, £9990, 16s. od.; principal villages, Krishnanagar, Narghát, Bhagwánpur, and Gopináthpur; Subordinate Judge's Court at Nimál; estimated population, 20,575. The thirty years' temporary Settlement of the *parganá* expired in 1872, and a re-settlement is now (1873) in progress of formation.

These figures refer to the *parganá* of Jalámutá only. The large estate of Jalámutá originally belonged to the local Muhammadan Governorship of Húglí. The Marhattás seized it in 1748, and retained it for twenty years, when it again reverted to its former dependence upon Húglí. It passed into the hands of the British in 1771, at which time the estate consisted of the following thirteen *parganá*s: Jalámutá, Keorámál, Dakshínmál, Rákeri, Bahádurpur, Gáomesh, Naochak Bázár, Wiláyat Gará, Bálísháhi, Birkul, Agrá-chaur, Mirgodá, and Bhográi. This property appears, from a genealogical table in the Collectorate, to have descended to one Rám Chandra Chaudhri, who was *zamindár* of the estate from 1694 to 1734. After his death, his nephew Lakshmi Náráyan Chaudhri held it till 1763. He was succeeded in his turn by his son Bir Náráyan Rái, who was the *zamindár* till 1780; when, in succession,

his son Nar Náráyan Rái held it till 1833. After his death, his son Rudra Náráyan Rái succeeded; he died, and was succeeded by his son Indra Náráyan Rái, a child of twelve years of age, having for his mother Rání Krishna Priyá. From the time of the estates coming into our possession in 1771, till 1801, Jalámutá was let out in farm. In that year, Mr. Fergusson, Collector and Salt Agent of Hijili, proposed a Permanent Settlement to Rájá Nar Náráyan Rái, who accepted the proposal so far as regarded the three *parganá*s of Báhirimutá, Bhaitgarh, and Dakshínmal. He refused to accept a Permanent Settlement for the remaining ten, and they were let out in detached farms. In 1825 a temporary Settlement of the estate was made with the Rájá, and on its expiry, was continued for five more years, ending in 1833. In the last-mentioned year a great inundation took place, and in 1834-35 the estate was taken under direct Government management. The next proceeding was a temporary Settlement for three years, from 1835 to 1837. After the expiry of this period, a thirty years' Settlement was effected, and which, as above stated, expired in 1872. The principal produce of the estate is rice, vegetables, mustard-seed, betel-leaf (*pán*), and *supári* (areca-nuts).

(45) JAMBANI: area, 70,804 acres, or 110·63 square miles; 1 estate; 258 villages; land revenue, £70, 12s. od.; average rate of assessment, $\frac{1}{4}$ d. an acre; principal village, Ghutiá; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 9405. A permanently settled *parganá* in the western jungle tracts.

(46) JAMIRAPAL: area, 6855 acres, or 10·71 square miles; estates and land revenue included with those of Dipkiárchánd; 27 villages; principal village, Jámirápál; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 13,258. The *parganá* is permanently settled.

(47) JAMNA TAPPA: area, 3168 acres, or 4·95 square miles; 4 estates; 4 villages; land revenue, £385, 8s. od.; average rate of assessment, 2s. 5 $\frac{1}{4}$ d. an acre; Subordinate Judge's Court at Midnapur; estimated population, 1135. This estate was held as rent-free subsistence (*nánkár*) land, but resumed by Government at the time of the Decennial Settlement. It is situated within Kedár *parganá*, and is permanently settled. The principal products are rice, mustard-seed, sugar-cane, and mulberry.

(48) JHARGAON: area, 109,985 acres, or 171·85 square miles; 1 estate; 231 villages; land revenue, £25, 16s. od.; average rate

of assessment, $\frac{1}{16}$ th of a penny per acre ; principal village, Jhárgeón ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 15,205. Jhárgeón *parganá* was originally assessed as a jungle estate with the Rájá of Bardwán ; subsequently, after the Decennial Settlement, the proprietor entered into definite engagements for the estate, the Government revenue being retained at the original assessment. The *parganá* is described as a fertile one, and is permanently settled.

(49) JHATIBANI OR SILDAH : area, 155,246 acres, or 242·57 square miles ; 1 estate ; 303 villages ; land revenue in 1849, £124, 5s. od., or an average assessment of $\frac{1}{8}$ ths of a penny per acre ; land revenue of present *parganá*, according to the Board of Revenue's Statistics, £79, 8s. od. ; principal villages, Sildah and Binpur ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 30,165. This, and indeed all the jungle *parganás*, are very lightly assessed. The cultivators belong to the forest castes, such as Dhángars, Kurmís, Bhumijs, and Santáls, and are averse to steady husbandry. The estate is a very fertile one, and abounds in good ebony and *sál* trees. Indigo is also largely cultivated. It is permanently settled.

(50) JULKAPUR : area, 3611 acres, or 5·64 square miles ; 15 estates ; 34 villages ; land revenue, £475, 16s. od. ; average rate of assessment, 2s. 7½d. per acre ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 2390. This *parganá*, which is permanently settled, originally belonged, together with Khándár and Bátitákí *parganás*, to the Náráyangarh family, and subsequently to the *Chaudhrís* of Khándár. At the time of the Decennial Settlement, however, these three *parganás* were all in the possession of comparative small holders, and the Settlement was made with them.

(51) KAKRACHAUR : area, 7924 acres (according to Mr. Torrens), or 12·38 square miles ; 11 estates ; 33 villages ; land revenue, £358, 16s. od. ; average rate of assessment, 10¼d. per acre ; principal villages, Barhari and Purúshottampur ; Subordinate Judge's Court at Dántun ; estimated population, 7570. This *parganá*, like Bírkul, is said to have been, prior to 1500 A.D., dependent on the Orissa Tributary State of Morbhanj ; but the cultivators revolted, and one Sagár Rái was established in the *zamindárá*. At the time of the Decennial Settlement, a good deal of this *parganá* was described as waste and jungle. Since then, the Decennial Settlement of it has been

made permanent, the land has been well and profitably cultivated, and it is considered a good *parganá* for the investment of capital in land. As an instance of this, Mr. Bayley mentions that an estate in the *parganá*, with an assessment of only £7, was sold in 1851 for £300. The principal products are rice, pulses, cotton, mustard-seed, native vegetables, and cocoa-nuts.

(52) KAKRAJIT TAPPA: area, 2628 acres, or 4·10 square miles; 3 estates; 8 villages; land revenue, £194, os. od.; average rate of assessment, 1s. 5½d. per acre; Subordinate Judge's Court at Dántun; estimated population, 510. A permanently settled *parganá*, in the western jungle tracts.

(53) KALINDI BALISHAHI: area, 23,144 acres, or 36·16 square miles; 12 estates; 38 villages; land revenue in 1849, £752, 13s. od., or an average assessment of 8d. an acre; the land revenue of the present *parganá* is returned in the Board of Revenue's Statistics at only £158, 10s. od.; Courts at Nimál and Dántun; population, 4180. A temporarily settled *parganá*; the last Settlement expired in 1872, and a fresh one is now (1873) in course of formation.

(54) KALRUI TAPPA AND KALRUI KISMAT: area, 1453 acres, or 2·27 square miles; 2 estates; 2 villages; land revenue, £5, 6s. od.; average rate of assessment, a penny an acre; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 10,105 (?).

(55) KASIARI TAPPA: area, 5525 acres, or 8·63 square miles; 2 estates; 51 villages; land revenue in 1849, £290, 11s. od., or an average assessment of 1s. 0¾d. an acre; land revenue of the present *parganá*, according to the Board of Revenue's Statistics, £303, 8s. od., or an average of 1s. 1¾d. an acre; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 6285. The *parganá* is permanently settled.

(56) KASIARI KISMAT: area, 342 acres, or ·53 square mile; land revenue in 1849, £12, 16s. od., or an average assessment of 9d. an acre. This small *parganá* is not returned in the Board of Revenue's Statistics.

(57) KASIJORA: area, 76,489 acres, or 119·51 square miles; 140 estates; 873 villages; land revenue, £17,192, 14s. od., or an average assessment of 4s. 6d. an acre; principal villages, Pratáppur and Pánchkurá; Subordinate Judge's Courts at the Headquarters Station of Midnapur and the Subdivisional Station of Tamluk;

estimated population, 89,260. This *parganá*, together with Sháhpur, was engaged for at the time of the Decennial Settlement by Rájá Sundar Náráyan Rái. He fell into arrears in three years, and the property was sold in small parcels, and is still so held under the Permanent Settlement.

(58) KASIJORA KISMAT: area, 26,025 acres, or 40'66 square miles; 40 estates; 183 villages; land revenue, £4461, 4s. od.; average rate of assessment, 3s. 5½d. per acre; Subordinate Judge's Courts at the towns of Midnapur and Tamluk; estimated population, 18,875. The *parganá* is permanently settled.

(59) KASIMNAGAR: area, 2556 acres, or 3'99 square miles; estates and land revenue included with those of Mahishádal; 13 villages, of which the principal is Lakshmiá; Subordinate Judge's Court at Tamluk; estimated population, 3610. The *parganá* is permanently settled.

(60) KEDARKUND: area, 25,019 acres, or 39'09 square miles; 77 estates; 65 villages; land revenue, £2608, 10s. od.; average rate of assessment, 2s. 1d. per acre; principal villages, Ghoshkshirá and Mundámári; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 21,605. This *parganá*, which is now permanently settled, was engaged for, at the time of the Decennial Settlement, together with Balrámpur and Kharagpur *parganá*s, by Bír Prasád Dás, the *sadr chauthri* or chief collecting officer of Midnapur District, who, in virtue of his office, was allowed to hold his estate at half rates. He left no issue, and upon his death, in consequence of disputes between his two wives, Government purchased the estate, and a Settlement was made under the provisions of Regulation VII. of 1822. The chief products of the *parganá* are rice, mustard-seed, sugar-cane, and mulberry. The land lies high, is exposed to danger of drought, and requires artificial irrigation.

(61) KEORAMAL: area, 2664 acres, or 4'16 square miles; 2 estates; 8 villages; land revenue in 1849, £137, 8s. od., or an average assessment of 1s. 0¾d. per acre; the revenue of the present *parganá*, as returned in the Board of Revenue's Statistics, is only £23, 8s. od.; Subordinate Judge's Court at Nimál; estimated population, 16,415. The *parganá* is temporarily settled; the last Settlement expired in 1872, and a new one is now (1873) in process of formation.

(62) KHALISA BHOGRAI: area, 3126 acres, or 4'88 square

miles ; 3 estates ; 10 villages ; land revenue in 1849, £192, os. od., or an average assessment of 1s. 2½d. per acre ; the revenue of the present *parganá*, as returned in the Board of Revenue's Statistics, is only £3, 16s. od. ; principal villages, Depál and Belbaní ; Subordinate Judge's Courts at Nimál and Dántun ; estimated population, 1920. The *parganá* is temporarily settled ; the last Settlement expired in 1872, and a new one is now (1873) in process of formation.

(63) KHANDAR : area, 90,841 acres, or 141·94 square miles ; 309 estates ; 1064 villages ; land revenue, £10,262, 6s. od. ; average rate of assessment, 2s. 3½d. per acre ; principal villages, Dasgáon and Senkuá ; Subordinate Judge's Court at Midnapur ; estimated population, 65,215. This *parganá* belonged to the Náráyanharh family at a period long anterior to the British accession, and subsequently to the Chaudhrís of Khándár ; but at the Decennial Settlement it had fallen into the hands of comparatively small holders, with whom the Settlement was made. Khándár is a very fine *parganá*, held under the Permanent Settlement, but is liable to occasional inundations from the Káliághái river. Its principal productions are rice, gram, sugar-cane, mulberry, and vegetables.

(64) KHARAGPUR : area, 28,409 acres, or 44·39 square miles ; 71 estates ; 150 villages ; land revenue, £2785, 16s. od. ; average rate of assessment, 1s. 11½d. per acre ; principal village, Kharagpur ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 19,495. This was one of the three *parganá*s granted at half rates to Bír Prasád Dás at the time of the Decennial Settlement, and resumed at his death, and permanently settled (*vide* Balrámpur and Kedárkund). The *parganá* lies high, and is exposed to the danger of drought. Its principal products are rice, mustard-seed, potatoes, and vegetables.

(65) KHARAGPUR KISMAT : area, 1138 acres, or 1·77 square miles ; 1 estate ; 4 villages ; land revenue, £104, 6s. od. ; average rate of assessment, 1s. 9¾d. per acre ; principal village, Chánguál ; estimated population, 2004. The *parganá* is permanently settled.

(66) KATSHAHI : area, 22 acres, or ·03 square mile ; 1 estate ; land revenue, £6, 18s. od. ; average rate of assessment, 6s. 3¼d. per acre ; estimated population, 4650. Permanently settled.

(67) KHATNAGAR : area, 43,584 acres, or 68·10 square miles ; 96 estates ; 341 villages ; land revenue, £2464, 18s. od. ; average rate of assessment, 1s. 1½d. per acre ; principal village, Beldah ; Subordinate Judge's Court at Dántun ; estimated population, 27,735.

A permanently settled *parganá*, held by small landholders. It is said to be somewhat exposed to drought, but not to be liable to inundation.

(68) KURULCHAUR: area, 27,492 acres, or 42·95 square miles; 53 estates; 97 villages; land revenue, £1835, 8s. od.; average rate of assessment, 1s. 4d. an acre; Subordinate Judge's Court at Dántun; estimated population, 12,250. A permanently settled and fertile *parganá*, the purchase of land in which is looked upon as an excellent investment. Mr. Bayley states that it is not exposed either to drought or inundation, and that remissions of rent to the cultivators are very seldom, if ever, needed. Good rice crops and sugar-cane are the principal products.

(69) KUTABPUR: area, 26,873 acres, or 42·00 square miles; 9 estates; 534 villages; land revenue, £4498, 18s. od.; average rate of assessment, 3s. 4d. an acre; principal villages, Golgáon and Málghátá; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 28,750. This *parganá*, according to Mr. Bayley, was originally settled with four proprietors, the divisions having increased to six in 1852. The largest of these divisions, or the five-eighths share, was transferred to one Hara Kumár Tagore in 1843-44. The principal products are rice, mustard-seed, sugar-cane, turmeric, mulberry, and vegetables.

(70) MAHISHADAL: area, 43,519 acres, or 67·99 square miles; 4 estates; 121 villages; land revenue, £16,519, 2s. od.; average rate of assessment, 7s. 7d. an acre; principal villages, Mahishádal and Rathgará; Subordinate Judge's Court at the Subdivisional town of Tamluk; estimated population, 28,345. Mr. Bayley states that Mahishádal originally formed part of *Sarkár Máljhátá*. The first of the family is said to have been one Bariá Rái Mahápátra, whose sixth descendant, Kalyán Rái, fell into arrears of revenue, and furnished as security one Janárdan Upádháya, who ultimately ousted him from his *samindári*. After him came Durjan, Rámeswar, Rájárám, Sukh Lál, and Anand Lál, all 'Upádháyas.' The last died in 1765, and was succeeded by Rání Jánakí. This lady had no son of her own, and had formally declared her intention of adopting one Matilál Pánre as her heir, and the latter took the title of 'Upádháya,' as the Rání's adopted son. Upon the Rání's death, Matilál's succession to the estate was disputed by the *dítwán* of the late Rání, and it is stated that he obtained possession of the document executed by Rání Jánakí adopting Matilál as her heir, and destroyed it.

Matilál eventually lost his cause in all the Courts, including an appeal to the Privy Council, and Jagannáth Garg was ultimately declared Rájá, and succeeded to the *samindári*. He died in 1834, and his widow succeeded as guardian and manager for her son, a minor, Rámnáth Garg, who died in 1840. He was succeeded by an adopted son, Lakshman Prasád Garg, who still lived and held possession of the estate in 1852. The staple product of Mahishádal is rice of a superior quality. At the time of the Decennial Settlement it was represented as consisting largely of waste and jungle land. Mr. Bayley states that the consequent light assessment which was then made, and the large increase of cultivation which has taken place since, together with the improved construction of the embankments, has rendered this a fine property. The *parganá* is permanently settled.

(71) MAINACHAURA: area, 48,397 acres, or 75·62 square miles; 121 estates; 111 villages; land revenue, £7852, 6s. od.; average rate of assessment, 3s. 2½d. per acre; principal village, Garhsaphát; Subordinate Judge's Court at the Subdivisional town of Tamluk; estimated population, 28,040. The family of the Rájá of Mainá-chaurá is a very old one. Mr. Bayley, in his ms. Report, states that the Rájá in 1852 was a very intelligent and superior man, who had been brought up under the Court of Wards. 'His great-grandfather entered into engagements at the Decennial Settlement for the *parganá*, but fell into arrears of revenue after three years. It is said that the Decennial assessment was then too heavy, considering the land was so much exposed to inundation. Since then, the soil has become raised by silt; and although it is still subject to inundation, yet, when not *over*-inundated, one year's good crop will repay four years' losses. It never suffers from drought. For instance, this year (1851-52) it has splendid crops of rice, sugar-cane, oil-seeds, turmeric, and mulberry, while the *parganá*s to the west of it are suffering much from drought. When the arrears occurred soon after the Decennial Settlement, the *parganá* was settled in small portions with several petty *táluqdárs*. Some of these failed, and a lighter assessment was then fixed. The Rájá entered into engagements for many of these small *táluks* of both classes, viz. those on the original and those on the lighter scale of assessment, but he did so under a fictitious name. Some of these fictitious holdings were discovered, and the purchases cancelled; others are still (1852) in the possession of the Rájá, and are very profitable. When the Rájá was a minor,

many of these *benámi* purchases, besides some of his personal property, were taken possession of by his guardian and relative, a Rájá of Sujámutá, for himself. The minor Rájá was then married to a daughter of the Rájá of Tamluk, and one of the servants of the latter was appointed guardian and manager, upon the security of the Rájá of Tamluk, but was afterwards dismissed for embezzlement. The present (1852) Rájá attained his majority in 1840 A.D.'

(72) MAJNAMUTA: area, 55,208 acres, or 86·26 square miles; 38 estates; 334 villages; land revenue in 1849, £4343, 9s. od., or an average assessment of 1s. 6½d. an acre; the land revenue of the present *parganá*, according to the Board of Revenue's Statistics, has increased to £12,362, 12s. od.; no explanation is forthcoming. The principal places in the *parganá* are the Subdivisional town of Contai (Kánthi), and the village of Athlágari; Subordinate Judge's Courts at Dánton and Nimál; estimated population, 41,220. Mr. Bayley thus quotes the history of this property, as recorded in a letter by Mr. Crommelin, Collector of the District, and dated 31st January 1816:—'Iswari Patnáik, the *sarkár* or house-clerk of Bhím Sen Mahápátra, died leaving two sons, Jagamohan Chaudhrí and Dayál Dás. He was succeeded by Jagamohan Chaudhrí, who died in 1633 A.D., leaving two wives, by each of whom he had two sons. His sons by the first wife were Dwáriká Dás Chaudhrí and Rájballabh Dás; and by the second wife, Ráj Kisor Chaudhrí and Raghunáth Rái Chaudhrí. He was succeeded by his son Dwáriká Dás, who died in 1643, leaving two sons, Krishna Nidhi Chaudhrí and Kunj Behári Rái. He was, however, succeeded by his half-brother Ráj Kisor Chaudhrí, who forcibly took possession of the *samíndári*, to the exclusion of the sons of the former proprietor, and held the estate till his death in 1693, when he was succeeded by his only son Bhupati Rái, who died in 1738, and leaving no son, was succeeded by his grandson, named Párbati Charan Rái. He also died without issue in 1745, and was succeeded (through the influence of Mustafá Khán with the then Nawáb) by Jádab Rám Rái, the grandson of Dwáriká Dás, the eldest son of the original proprietor of the estate. Thus, the succession, after running for three generations in the younger branch of Jagamohan Chaudhrí's family, again reverted to that of the elder brother, whose rights had been forcibly withheld. Jádab Rám died in 1780, leaving a large family. He was succeeded by his eldest son, Kumár Náráyan Rái, who died in 1782, and was

succeeded by his only son, Jai Náráyan Rái, who died the following year, and was succeeded by his mother-in-law, Rání Sugandhyá (the second wife of his father, Kumár Náráyan Rái) ; and on her dying in 1803, the succession became an object of contention between several parties.' The question of the disputed succession was carried into the Sadr Díwání Adálat. The succession in the male line had become extinct ; and the result of the case was, that in the female line, five grandsons and one granddaughter of Jádab Rám Rái were acknowledged as the proprietors of the estate. In 1852 the estate was in the hands of Anand Lál Rái, Nand Lál Rái, Swarúp Náráyan Rái, Iswar Chandra Rái, and Durgá Prasád Chaudhrí. The holder of the sixth share had just died without heirs, and the other proprietors were quarrelling among themselves for his share. The *parganá* is temporarily settled ; the last Settlement expired in 1872, and a new one is now (1873) being formed.

(73) MAJNA NAYABAD: area, 1313 acres, or 2·05 square miles ; 2 estates ; 8 villages ; land revenue in 1849, £88, 9s. od., or an average assessment of 1s. 4d. an acre ; the revenue of the present *parganá*, according to the Board of Revenue's Statistics, is only £10 ; no explanation is available ; Subdivisional Court at Nimál ; estimated population, 232. The *parganá* is temporarily settled ; the last Settlement expired in 1872, and a new one is now (1873) in course of formation.

(74) MANOHARGARH: area included with that of Midnapur or Bhanjbhúm *parganá* ; 2 estates ; land revenue, £1, 6s. od. ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 371. Permanently settled.

(75) MATKADABAD: area, 2248 acres, or 3·51 square miles ; 4 estates ; 20 villages ; land revenue, £168, 18s. od. ; average rate of assessment, 1s. 6d. an acre ; Subordinate Judge's Court at Dántun ; estimated population, 12,065 (?). The *parganá* is permanently settled.

(76) MATKADPUR: area, 24,413 acres, or 38·14 square miles ; 5 estates ; 248 villages ; land revenue, £469, 18s. od. ; average rate of assessment, 4½d. per acre ; principal village, Baitá ; Subordinate Judge's Court at Midnapur ; estimated population, 8475. A permanently settled *parganá*.

(77) MIDNAPUR OR BHANJBHUM: area, including Bahádurpur, Dhenkiá Bázár, and Manohargarh, 309,613 acres, or 483·77 square miles ; the separate area of Midnapur *parganá* is returned in Mr.

Torrens' Report of 1849 at 237,698 acres, or 371·40 square miles; estates in Midnapur alone, 41; 802 villages; land revenue of all the *parganás* in 1849, £9371, 18s. od., or an average assessment of 7d. an acre; present land revenue, according to the Board of Revenue's Statistics, £10,111, or an average assessment of 7½d. an acre. Principal towns and places in the *parganá*, Midnapur, Pathrá, Sálbaní, and Kespur; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 83,205. Mr. Bayley states that most of the Midnapur estates, together with the whole of Náráyangarh, Balrámpur, Kedár, and Kharagpur *parganás*, originally belonged to a jungle chief called the Khairá Rájá. His *diwán*, or Finance Minister, together with two other servants, conspired and slew their master, dividing his estates amongst themselves. The *diwán* appropriated Midnapur, and the other two took possession of Náráyangarh and Balrámpur respectively. A local tradition says that the Khairá Rájá's seven wives, upon the murder of their husband, burnt themselves, and prophesied at the funeral pile, that after the lapse of seven generations the families of the three treacherous servants would be heirless, and the property go to others. In the case of the Balrámpur family this was fulfilled, and the descendants of the treacherous *diwán* have long been ousted from the Midnapur estate, which their ancestor seized. Repeated disputes regarding succession to the estates have occurred, the property has gradually dwindled away, and in 1851 a good deal of it had passed into the possession of the Nawáb Názim of Bengal. The Midnapur family, however, still held a profitable estate in Chitwá, together with the whole of Nárájol *parganá*.

(78) MIDNAPUR KISMAT: area, 8528 acres, or 13·32 square miles; 10 estates; 80 villages; land revenue, £1393, 2s. od.; average rate of assessment, 3s. 3d. per acre; principal village, Bághruí; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 35,700. The *parganá* is permanently settled.

(79) NANKAR BALLABHPUR: area, 5498 acres, or 8·59 square miles; number of estates and amount of land revenue included with those returned for Midnapur *parganá* (No. 77); estimated population, 5000. A scattered *parganá*, permanently settled.

(80) NARAJOL: area, 8997 acres, or 14·05 square miles: 1 estate; 71 villages; land revenue, £1332, 14s. od.; average rate of assessment, 2s. 11½d. per acre; principal village, Nárájol; Subordinate

Judge's Court at the Civil Station of Midnapur : estimated population, 7755. The *parganá* is permanently settled.

(81) NARANGACHAUR : area, 9199 acres, or 14·37 square miles ; 6 estates ; 65 villages ; land revenue, £256, 10s. od. ; average rate of assessment, 6½d. per acre ; Subordinate Judge's Court at Dántun ; estimated population, 3105. The *parganá* is permanently settled.

(82) NARAYANGARH : area, 81,254 acres, or 126·96 square miles ; 6 estates ; 387 villages ; land revenue, £1964, 18s. od. ; average rate of assessment, 5¾d. per acre ; principal villages, Náráyangarh, Syámalpur, and Benápura ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 37,375. A permanently settled *parganá*. Mr. Bayley states that the family of the Rájá of Náráyangarh counts back for twenty-four generations, and bears the titles of 'Sri Chandan' and 'Mari Sultán.' The first is a title granted by the Rájá of Khurdhá, and refers to the sandal-wood placed inside the idol of Jagannáth ; the latter is a Muhammadan title, and means the 'lord of the road,' having been conferred by a Nawáb who was travelling in this part of the country, and for whom the Rájá constructed a road in one night. When Midnapur came into the hands of the British in 1760, the Náráyangarh Rájá assisted us against the Marhattás, and again in 1803.

(83) NARAYANGARH KISMAT : area, 5527 acres, or 8·63 square miles ; 1 estate ; 33 villages ; land revenue, £343, 2s. od. ; average rate of assessment, 1s. 2½d. per acre ; principal village, Banpatná ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 5760. A permanently settled *parganá*.

(84) NARUAMUTA : area, 33,585 acres, or 52·47 square miles ; 173 estates ; 71 villages ; land revenue in 1849, £811, 14s. od., or an average assessment of 5¾d. per acre ; the revenue of the present *parganá*, according to the Board of Revenue's Statistics, amounts to only £151, 14s. od. ; no explanation is forthcoming ; principal village, Mánikjor ; Subordinate Judge's Court at Nimál ; estimated population, 8295. The *parganá* is temporarily settled ; the last Settlement expired in 1872, and a new one is now (1873) in course of formation.

(85) NAYA ABADI : area, 1393 acres, or 2·17 square miles ; estates and land revenue included with those of Mahishádal ; 1 village ; Subordinate Judge's Court at Tamluk ; estimated population, 1552. A permanently settled *parganá*.

(86) *NAYABASAN*: area, 129,402 acres, or 202·19 square miles; 4 estates; land revenue, £379, 4s. od.; average rate of assessment, about three-fourths of a penny per acre; principal villages, Mahápál and Gopšballabhpur; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 36,640.

(87) *NAYAGAON*: area, 110,976 acres, or 173·40 square miles; estates and land revenue included with Dipkiárchánd *parganá*; 204 villages, of which the principal are Nayágáon, Kultkuri, and Jámirápál; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 16,115. This *parganá*, which is permanently settled, was annexed to the District in 1803. The Rájá fled, having assisted the Marhattás against us. He had been originally a *sardár* of *páiks*, or chief of militia, among them. His son, however, entered into engagements with the British Government for the estate.

(88) *ORISSA BALISHAHI*: area, 5549 acres, or 8·67 square miles; 4 estates; 6 villages; land revenue, £595, 16s. od.; average rate of assessment, 2s. 2d. an acre; Subordinate Judge's Court at Dántun; estimated population, 3185. Mr. Bayley gives the following history of this *parganá*, from a genealogical table of the Bhuiyá family of Bálísháhi, running back for a period of seven hundred years. In the time of the Hindu monarchy of Orissa, the *parganá* belonged to a *khandáit* or hill chief, who paid tribute to the Rájá of Orissa. Failing in this on one occasion, the Rájá attached the estate, and bestowed it on one Hajulí Budisakhsh in 1055 A.D. His son succeeded him, and the estate was handed down intact from father to son for many generations, till the time of one Kapulí Dás Mahápátra, from whom a six *ánás* or three-eighths share of the estate was wrested by his younger brother, Akurí Dás Mahápátra. The remaining ten *ánás* or five-eighths share remained in the elder line, and for nineteen generations passed from father to son, till in 1852 it was in the hands of Sambhu Náráyan Mahápátra. The six *ánás* or three-eighths share only continued intact for one generation; for the first descendants of Akurí Dás (who had himself taken the share by force from his elder brother) quarrelled over the estate upon his death, and the share was again subdivided into a four *ánás* or one-fourth, and a two *ánás* or one-eighth share, the first of which was given to the eldest son of Akurí Dás, and the second to the younger son. The two *ánás* share was still in the hands of the family in 1852, in the person of Indra Náráyan Dás Mahápátra. The four *ánás* share continued to remain in the family for seven generations,

and was then subdivided and sold to different parties. The *parganá* is a permanently settled one; it is fertile and well cultivated, and the purchase of land in it was looked upon as a good investment for capital, except a part which borders on the Pichásbaní *khál*, and which was occasionally exposed to salt-water inundations.

(89) PAHARPUR: area, 13,044 acres, or 20·38 square miles; 20 estates; 34 villages; land revenue in 1849, £437, 13s. od., or an average assessment of 8d. an acre; the revenue of the present *parganá*, according to the Board of Revenue's Statistics, amounts to only £29, 12s. od.; Subordinate Judge's Courts at Nimál and Dántun; estimated population, 5520. This is a temporarily settled *parganá*; the last Settlement expired in 1872, and a new one is now (1873) in course of formation.

(90) PATASPUR: area, 38,857 acres, or 60·71 square miles; 23 estates; 167 villages; amount of land revenue in 1849, £3332, 14s. od., or an average assessment of 1s. 8½d. per acre; present land revenue, according to the Board of Revenue's Statistics, £3260, 8s. od., or an average assessment of 1s. 8½d. per acre; principal villages, Kasbá and Páchet; Subordinate Judge's Court at Dántun; estimated population, 19,300. The *parganá* is temporarily settled; the last Settlement expired in 1872, and a new one is now (1873) in process of formation. Mr. Bayley states that this *parganá* up to 1803 A.D. was a Marhattá estate, and was ceded by them to the English along with the Province of Orissa. The greater part of Patáspur was then in the hands of a lady named Renuká Debí Chaudhrain, and this was taken over and remained under direct Government management until 1806, when it was transferred to the Hijili Collectorate, and a five years' Settlement was made with Debí Chaudhrain. She subsequently adopted one Kisorí Nandan Chaudhrí as her heir, but died while he was a minor. A five years' Settlement was then made with Jasodá Nandan Chaudhrí, the father of Kisorí Nandan Chaudhrí, but in the name of the latter. The father died just at the expiration of the Settlement, and the minor's elder brother was appointed manager until he should become of age. Kisorí Nandan Chaudhrí attained his majority in 1810, and periodical short Settlements of the estate were made with him. At one of these Settlements the assessment made upon the *parganá* was higher than the proprietor would agree to, and it was consequently farmed out for three years. Subsequently Kisorí Nandan agreed to take the land at the assessment which he had refused before. In

1825, Patáspur was re-transferred to the Midnapur Collectorate. Between 1833 and 1836 a detailed Settlement of the estate was made under the provisions of Regulation VII. of 1822, in which the whole *parganá* was re-measured. Kisorí Nandan refused to accept the Settlement, and the *parganá* was placed under Government management till 1839, when he agreed to the Settlement at the assessment which had been fixed on the land. Kisorí Nandan died in 1845, leaving an adopted son, a minor, who in 1851 was a ward of the Collector of the District. Patáspur produces spring and autumn rice, sugar-cane, oil-seeds, tobacco, and a little mulberry. A Muhammadan *madrasah*, or charitable school, is situated in Patáspur, to which an allowance of fifty maunds of salt per annum, and one rupee per diem, are assigned for the support of the Muhammadan priest in charge of the institution. A grant of two hundred *bighás* of rent-free land was also assigned for the support of the institution by the Marhattás; and the endowment was upheld and confirmed by the British when the *parganá* was transferred to us. Mr. Bayley stated in 1851, that forty pupils were then borne on the rolls of the school, but that the institution was very badly managed, and required thorough reform.

(91) PATASPUR KISMAT: area, 6694 acres, or 10·46 square miles; 3 estates; 21 villages; land revenue in 1869, £365, 5s. od., or an average assessment of 1s. 1d. per acre; the land revenue of the present *parganá*, according to the Board of Revenue's Statistics, amounts to only £84, os. od.; no explanation available; Subordinate Judge's Court at Nimál; estimated population, 2040. A temporarily settled *parganá*; the last Settlement expired in 1872, and a new one is now (1873) in course of formation.

(92) PRATAPBHAN: area, 11,290 acres, or 17·64 square miles; 22 estates; 104 villages; land revenue, £1158, 2s. od.; average rate of assessment, 2s. 0½d. per acre; principal village, Karui; Subordinate Judge's Court at Dántun; estimated population, 8700. A permanently settled *parganá*, held by small proprietors; principal products, rice and sugar-cane.

(93) PURUSHOTTAMPUR TAPPA: area, 7756 acres, or 12·12 square miles; 1 estate; 24 villages; land revenue, £668, os. od.; average rate of assessment, 1s. 8½d. per acre; Subordinate Judge's Court at Dántun; estimated population, 2224. A permanently settled *parganá* of small proprietors; principal products, rice, vegetables, and oil-seeds.

(94) RAJGARH: area, 10,989 acres, or 17·17 square miles; 30 estates; 35 villages; land revenue, £489, 14s. od.; average rate of assessment, 10½d. an acre; Subordinate Judge's Court at Dántun; estimated population, 5744. A permanently settled *parganá*.

(95) RAMGARH: area, 26,553 acres, or 41·49 square miles; 5 estates; 66 villages; land revenue, £81, 6s. od.; average rate of assessment, ¾d. per acre; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 7565. A permanently settled *parganá*. The Rájás of this and the adjoining *parganá* of Lálgarh are *bhāts* (genealogists) by caste. Their ancestors are said to have been *pāiks* of Midnapur, and, like other *bhāts*, were employed as messengers and news-carriers. They once conveyed the news of the birth of a son to one of the old Rájás of Midnapur, who, in return for the good news, gave the messengers the *pargánás* of Rámgarh and Lálgarh, and which are still held by their descendants. Rámgarh is situated in the jungle tracts of the District, and the cultivators principally belong to the forest tribes, such as Dhángars and Bhumijis. The principal products are rice, sugar-cane, and indigo.

(96) ROHINI MAUBHANDAR: area, 24,857 acres, or 38·84 square miles; land revenue, according to Mr. Torrens' Report in 1849, £379, 3s. od. Not returned as a separate *parganá* in the Board of Revenue's Statistics.

(97) SABANG: area, 55,978 acres, or 87·47 square miles; 268 estates; 355 villages; land revenue, £9727, 10s. od.; average rate of assessment, 3s. 3½d. per acre; principal villages, Pingalá and Gobardhanpur; Subordinate Judge's Court at the Civil Station of Midnapur; estimated population, 53,390. The *parganá* is permanently settled. Before our accession it belonged to the Rájá of Maináchaurá, who levied a quasi-tribute, not a regular revenue, from the occupiers of land there. At the time of the Decennial Settlement it was settled with small proprietors. The principal products are rice, oil-seeds, turmeric, and mulberry.

(98) SAIKA PATNA: area, 228 acres, or ·35 square mile; 1 estate; 2 villages; land revenue, £42, 14s. od.; average rate of assessment, 3s. 9d. per acre; Subordinate Judge's Court at Dántun; estimated population, 85. The *parganá* is permanently settled, and held by small proprietors.

(99) SANKAKULIA OR LALGARH: area, 35,504 acres, or 55·47 square miles; 1 estate; 25 villages; land revenue, £91, 6s. od.;

average rate of assessment, $\frac{1}{2}$ d. per acre ; principal village, Lálgarh ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 8355. A permanently settled *parganá* in the jungle tracts of the District. The principal products are rice, indigo, and sugar-cane.

(100) SHAHPUR : area, 31,959 acres, or 49·93 square miles ; 135 estates ; land revenue, £5600, 14s. od. ; average rate of assessment, 3s. 6d. per acre ; principal villages, Nawádá and Debrá ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 37,035. A permanently settled *parganá*. At the time of the Decennial Settlement, it was engaged for by Rájá Sundar Náráyan Rái. He fell into arrears three years afterwards, and the property was sold in small parcels, and still continues to be so held. The *parganá* is said to be liable to drought.

(101) SHAHPUR KISMAT : area, 5150 acres, or 8·04 square miles ; 28 estates ; land revenue, £972, 2s. od. ; average rate of assessment, 3s. 9 $\frac{1}{2}$ d. per acre ; Subordinate Judge's Court at the Civil Station of Midnapur ; estimated population, 1365. Permanently settled.

(102) SHARIFABAD : area, 1799 acres, or 2·81 square miles ; land revenue in 1849, according to Mr. Torrens' Report, £174, 10s. od. ; the present land revenue and number of estates are included in the Board of Revenue's Statistics with those of Maináchaurá ; Subordinate Judge's Court at Nimál ; estimated population, 1995. The *parganá* is temporarily settled ; the last Settlement expired in 1872, and a new one is now (1873) in course of formation.

(103) SIBPUR OR SIPUR : area, 40,446 acres, or 63·19 square miles ; 96 estates ; 170 villages ; land revenue, £2771, 16s. od. ; average rate of assessment, 1s. 4d. per acre ; principal villages, Páncrol and Ráidá ; Subordinate Judge's Court at Dántun ; estimated population, 24,576. The *parganá* is permanently settled, and estates within it are looked upon as a good investment for capital. Mr. Bayley states that, at the time of the Decennial Settlement, it was represented as being to a great extent waste land, and was very lightly assessed in consequence. Since then cultivation has much extended, and land has become so valuable, that Mr. Bayley states that an estate paying a land revenue to Government of only £5, 4s. od. sold for £230. Its chief productions are good sugar-cane and rice crops.

(104) **SIBPUR KISMAT**: area, 1244 acres, or 1'94 square miles; 4 villages; land revenue in 1849, according to Mr. Torrens' Report, £157, 12s. od., or an average assessment of 2s. 6d. per acre; the present land revenue and number of estates are included in the Board of Revenue's Statistics with those of Majnámutá; Subordinate Judge's Courts at Nimál and Dántun; estimated population, 980. A temporarily settled *parganá*; the last Settlement expired in 1872, and a new one is now (1873) in course of formation.

(105) **SUJAMUTA**: area, 28,829 acres, or 45'04 square miles; 11 estates; 65 villages; land revenue, £4502, 18s. od.; average rate of assessment, 3s. 1d. per acre; principal villages, Kalábária and Rádhápur; Subordinate Judge's Court at Nimál; estimated population, 9627. The *parganá* is permanently settled. Mr. Bayley states that, in the same manner that the Majnámutá property was bestowed upon the house-clerk, and Jalámutá to the butler, of Bhím Sen Mahápátra, so Sujámutá was bestowed upon his personal attendant and man-at-arms, Gobardhan Ranjá. At the time of the Decennial Settlement, one Debendra Náráyan Rái was found in possession of the estate, and a Settlement was made with him. He died in 1807, and was succeeded by Gopál Indra Náráyan, one of his two sons. Krishnendra, the second son, disputed his brother's succession in the Provincial Court, but subsequently withdrew his suit. Gopál Indra Náráyan died in 1837, leaving two widows and a daughter, upon which the estate was taken under the Court of Wards. The daughter subsequently married Jagomohan Chaudhrí, who brought a suit in the Supreme Court for possession of the estate on behalf of his wife. But, at the same time, the late Rájá's agent proved that he had left an unfinished deed of adoption, and a will, desiring that his nephew, the son of Krishnendra, his younger brother, should be his heir, upon the condition of assuming his name. The Supreme Court dismissed Jagomohan's claim, and upheld the claim set up on behalf of the late Rájá's nephew, a minor of 15 years of age in 1851. The principal product of the *parganá* is rice, and it is described by Mr. Bayley as a fairly profitable property.

(106) **TAMLUK**: area, 65,234 acres, or 101'92 square miles; 11 estates; 207 villages; land revenue, £12,741, os. od.; average rate of assessment, 3s. 11d. per acre; principal places, Tamluk Sub-divisional town and Keluámál village; Subordinate Judge's Court at the town of Tamluk; estimated population, 26,595. Tamluk originally formed a part of the 'Salt Districts' under the Collec-

torate of Hijili. The following brief history of the Tamluk family is condensed from Mr. Bayley's ms. Report. Tamluk was originally a Buddhist town containing many fine monasteries, and was a large emporium of eastern trade. Although all vestiges of the Buddhistic religion have disappeared for centuries past, it is said that there are some Hindu families in Tamluk who still bury their dead after the Buddhist fashion. The names of the first five Rájás of whom there is any tradition, were Mayurdhwaj, Támradhwaj, Hansadhvaj, Garurdhwaj, and Bidyádhari Rái. The next thirty-seven Rájás all bore the surname of Rái, but no date is given for any of them, till the 42d Rájá, Bhayer Bhuiya Rái, who is said to have died in 1404 A.D. The 48th Rájá, Kesab Rái, was dispossessed of his estates in 1645 by the Mughul Government for not paying his rent, and Hari Rái held it till 1654. Upon the death of the latter, the succession was disputed between his son and cousin, which was ultimately settled by dividing it into two equal shares. It so remained till 1701, when, owing to failure of heirs to one of the cousin's family, the whole estate became again united, and passed into the hands of Náráyan Rái and his heirs, the representatives of the other cousin's family. Subsequently, in 1757, one Mirzá Dedár Beg seized the property, and retained possession of it till 1767. It then reverted, by order of the Governor, to the widows of the dispossessed family, viz. to Rání Santoshpriyá and Rání Krishnapriyá; and the adopted son of one and the real son of the other succeeded to a seven *ánás* and a nine *ánás* share of the estate respectively. Subsequently, in 1795, Anand Náráyan Rái, the holder of the nine *ánás* share, succeeded to the whole estate by a civil suit with Sib Náráyan Rái, the then representative of the other branch of the family which held the seven *ánás* share. Two widows of Anand Náráyan succeeded, who each adopted a son, the one Lakshmi Náráyan Rái, and the other Rudra Náráyan. The estate was divided between these two. Constant disputes took place between them, and ultimately first one and then the other brother's share of the estate were sold. Mr. Bayley states that the *parganá* is not liable to drought. It is embanked, as a security against inundation, and is conveniently situated near the Húglí and Rúpánáráyan rivers for the transport of its produce, consisting principally of rice, cocoa-nuts, mulberry, and vegetables. The *parganá* is permanently settled. See also *ante*, pp. 62-67, 185, and my *Orissa*, vol. i.

(107) TIRPARA OR TERUPARA: area, 6629 acres, or 10·35 square

miles ; 22 villages ; land revenue and estates included with those of Mahishádal ; Subordinate Judge's Court at the Subdivisional town of Tamluk ; estimated population, 3865. A permanently settled *parganá*.

(108) TARKUACHAUR : area, 28,191 acres, or 44·04 square miles ; 38 estates ; 123 villages ; land revenue, £1909, 4s. od. ; average rate of assessment, 1s. 4d. an acre ; Subordinate Judge's Court at Dántun ; estimated population, 11,970. A permanently settled *parganá*, and a valuable property, not subject to either drought or inundation.

(109) UTTAR BEHAR : area, 15,758 acres, or 24·62 square miles ; 24 estates ; 96 villages ; land revenue, £1251, 6s. od. ; average rate of assessment, 1s. 7d. per acre ; Subordinate Court at Dántun ; estimated population, 10,190. A permanently settled *parganá*, held by small proprietors.

The foregoing 109 Fiscal Divisions exhibit a total area of 3,141,997 acres, or 4909·37 square miles ; comprising 2917 estates ; paying a total land revenue of £215,431, os. od., with a total estimated population of 1,687,183 souls. These figures have been made up from the latest sources. Mr. Torrens' Report, dated 1849, shows a total area of 3,225,905 acres, or 5040·47 square miles ; with a land revenue of £201,440. The Board's Statistics of 1869 yield a total area of 3,095,126 acres, or 4836·13 square miles ; with a land revenue of £202,271. This sufficiently tallies with the 'current demand' of 1870, namely £202,070. The difference in the total yielded by the list in the foregoing pages, as compiled by me from the latest sources, chiefly arises from the transfer in 1872 of the two *parganá*s of Bardá (No. 16) and Chandrakoná (No. 25) from Húglí District to Midnapur. The area thus added amounted to 63,073 acres, or 98·55 square miles ; and the land revenue to £14,484. Adding these to the totals yielded by the Board of Revenue's Statistics of 1869, the result shows 3,158,199 acres, or 4934·68 square miles ; and a land revenue of £216,755. The actual totals yielded by my list are 3,141,997 acres, or 4909·37 square miles ; and a land revenue of £215,431. The difference in these results is chiefly due to petty transfers from Midnapur to Balasor, and to the fact that a corner of Chandrakoná *parganá* was already in Midnapur District in 1869. It will be seen, therefore, that although serious discrepancies exist as to individual *parganá*s, from the uncertainty of their boundaries, the aggregate of all the

parganás in the District discloses a fairly uniform result as to area and land revenue. The Surveyor-General now (1873) returns the area of the District at 5082 square miles. The Board of Revenue, in a special return furnished to me, returns the number of estates at 2808, and the current land revenue demand in 1870-71 at £202,070. The Census of 1872 returned the total population at 2,540,963 souls.

METEOROLOGICAL ASPECTS. THE CYCLONE of 1864.—The most important feature in the recent meteorological history of Midnapur was the cyclone of 1864. The following paragraphs regarding the effects of the storm on this District are condensed from official documents published in 1866, and from the Bengal Administration Report for 1864-65. A further description of this great atmospheric disturbance, showing its effects over the whole Province, will be given in my General Account of Bengal.

The gale had its origin in the vicinity of the Andaman Islands, and, travelling northwards and westwards, first struck Bengal on the Balasor coast and Hijili. In the southern and eastern parts of Midnapur, which lie on the sea, and were exposed to the full force of the storm-wave, the effects were most disastrous. The storm commenced at Contai (Kánthi) early in the morning of the 5th October, and increased steadily till $\frac{1}{4}$ to 9, when it was at its height. Between 8 and a quarter to 10 the aneroid barometer fell from 28·95 to 28·025, and remained at that point till 11, during which interval the centre of the cyclone was passing over the station. At $\frac{1}{4}$ to 10 the wind lulled almost to a calm. At 11 the storm recommenced, the wind coming from the south-west, and raged for an hour with intense violence. By 12 the barometer had risen to 28·125, and shortly afterwards the gale came nearly from the west. By 2 it had moderated, and the barometer had risen to 29·40.

At Cowcolly, which is situated about thirteen miles to the east and four miles to the north of Contai, the Lighthouse Superintendent thus describes the hurricane:—‘About 5 A.M. of the 4th the wind commenced blowing a stiff breeze from north-north-east, which continued the greater part of the day; at the close of the day the wind fell, and kept so till midnight, after which it increased again. At 3 A.M. of the 5th there was a dead calm, which lasted for an hour; after that it began to blow again in frightful puffs, with a lull between. This lasted till daylight, when it began to blow very heavily from the north-east, with a driving rain; and at 7 A.M. it was blowing a

hurricane, which increased in violence every moment. About 9 A.M. a thick scud or spray obscured everything. A little after 10 A.M. there was a sudden lull. This was of short duration; for in the course of a few minutes it was blowing as heavily from the east, the wind having shifted during the lull. At 10.30 A.M. the storm-wave broke over, sweeping everything before it. This continued without any intermission until 3 P.M., when the wind moderated a little, and suddenly shifted to the south-west; from this quarter it blew with equal fury till 4 P.M., driving a large quantity of water before it, with human beings and cattle intermingled. It was impossible to render any assistance at that time; but about 5 P.M., when it became quite calm and clear, and the water could be waded through with safety, although it was still waist-deep, and rushing with some force through the gaps in the embankments, I saved nine poor creatures who were clinging to the roots of upturned trees. . . . After 5 P.M. there was only a light breeze, still from the south-west, which continued throughout the night. The night was bright and starry.' The town of Tamluk is situated on the banks of the Rúpnráyan, 37 miles north by east from Contai. Here the hurricane reached its height about $\frac{1}{2}$ past 11 A.M. on the 5th, when the storm-wave came in, the water rising thirteen feet just after the wave had passed, and continuing to rise steadily till noon, when the centre of the cyclone passed over the station. The central calm was about half an hour in passing, and then the wind changed to due west, driving back the water. In two or three hours the wind perceptibly decreased, and by 6 P.M. it was merely blowing fresh from the westward. From Tamluk the gale travelled rapidly northwards, and burst furiously on Kailá Ghát, 11 miles north by west of the former place, a few minutes after 12, when the storm-wave came in, the top of the wave being only two or three feet lower than the top of the embankment. The central calm reached Kailá Ghát between 1 and 2 P.M.

The height of the storm-wave varied. On the southern coast it nowhere attained any extraordinary height, and did not to any appreciable extent breach the sea face of the great dyke of Hijili. The wide mouth of the Rasúlpur river, however, was a door to the water; and although its principal creeks are all embanked, a large area of land behind Contai was flooded. As the wave was forced up the narrowing estuary of the Húglí, its height and force increased. At Cowcolly the wave came in two hours before high tide, and rose

16'48 feet above high-spring level, and 6 feet 4 inches above the top of the embankment, sweeping over the country within, and carrying away everything in its path. Higher up the river, at the mouth of the Haldí, the height of the wave was ten feet above spring-tide level, and overtopped the embankment for several feet along a length of eighteen miles. At Tamluk, the water poured in irresistible volumes over the embankment, which it topped to a depth of $8\frac{1}{2}$ feet, sweeping away a row of masonry houses inside, and scooping out the foundations. At exposed points, the first intimation the people had of the inundation was their being carried away by the wave. At Kailá Ghát, it entered the Kailá Khál in a vast mass, sweeping up parallel to the metalled road, and topping it for several miles up. The height of the inundation decreased gradually towards the interior, and the flood did not extend beyond Siddhá, an inland village of *parganá* Kásijorá. From the mouth of the Rúpnráyan, as far as Kailá Ghát, the inundation extended inland for an average distance of nine or ten miles. Below the mouth of the Rúpnráyan, the inundation was more extensive and generally more severe, as the waters from the estuary of the Húglí swept over the low-lying promontory of Doro Dumnán and Mahishádal, and up the wide channels of the Haldí and Rasúlpur rivers.

The loss of life and property was very great. In the low-lying *parganá* of Gumgarh, for example, it was estimated at three-fourths of the total population. In a case of gang robbery from the neighbourhood of Nandígáon (a police station in Gumgarh *parganá*), and which had been committed to the Sessions with thirty-two witnesses, the police reported after the cyclone that only two of them were forthcoming. The post office of Khejirí (Kedgerree) was totally destroyed, and the postmaster and his family were washed away and drowned. No returns were submitted from Southern Hijili, although the loss of life in that locality must have been very great. Colonel Short, in a report on Southern Hijili after the cyclone, states:—‘The fury of the cyclone caused a fearful destruction in the villages to the interior; indeed, the raised plateaux on which many stood were swept clean, and the consequent misery must have been very great. It appears that the people, believing the lull in the storm to be the sign of its having passed over, proceeded to bring in their cattle, and whilst so engaged they were overtaken by the waters, which, topping the lowest part of the dyke or entering through the breaches, drowned man and beast; while many, stand-

ing on the high ridges separating the fields, were, during the height of the cyclone, literally swept into the water and drowned. A small isolated circuit of embankment bordering on the Rasúlpur river encloses about half a square mile of cultivated land in the midst of the salt lands to the rear of the second line of sand-hills. Over this the wave swept unimpeded; and "all within the circuit, including cattle, must have been carried away, surrounded as they were by a sea breaking six or eight feet high over the land, and lashed by the cyclone." In Báhirimutá, outside the embankment, a terrible destruction spread over an area of 56 square miles; the devastation being here greater than inside the embankment, as the villages are larger, more numerous, and better populated. Excluding the large tracts from which no returns of loss of life were received, the ascertained deaths caused by the cyclone in Midnapur District are reported as follow:—Gumgarh, 8159 actually counted; Aurangnagar, 106 reported; Kasbá Hijili, Pár Bisián, and Eranch—estimated loss, 8000; Doro Dumnán—estimated loss, 10,000; Kásimnagar, 686 actually reported; Mahishádal, 3740 actually reported; Tírpára, 132 reported; Gumái, 23 reported; and Tamluk, 2166 reported. This return gives a total of 33,012, exclusive of that in Southern Hijili, and the *parganá*s of Dattakharui, Kismat Patáspur, and Naruámutá, where the loss of life is known to have been heavy; and of that in Sujámutá and Jalámutá, where it was comparatively slight. The returns for Tamluk are also imperfect.

The number drowned or killed in the storm, however, by no means represents the total loss of life caused by the cyclone. The immediate losses were equalled, if not exceeded, by the deaths caused by the famine and pestilence (cholera, dysentery, and small-pox), in a great measure the consequence of the inundation. The prompt steps taken by the Calcutta public, by Government and its local officers, and by many private persons, to send supplies of food and clothing, alleviated the pressure of famine after a few days. But the putrid vegetation and unburied bodies and carcases which for many weeks lay strewn over the country, and the consumption of bad food and impure water, were evils less easy to deal with. These fertile causes of disease acted on a people already under severe mental prostration from the loss of their relations and property, and proved more fatal than the deluge which had first overwhelmed them. The prejudices of the agricultural classes against touching a dead body were so strong as to be proof even against the dictates of

self-preservation. The predacious animals, such as jackals, vultures, etc., had been destroyed in the storm, and bodies lay strewn over the country for many weeks after the cyclone. Mr. Montresor, the Commissioner of the Division, reported that 'almost entire villages have been depopulated from those awful scourges, cholera and smallpox;' and Mr. P. Dickens, Assistant Magistrate of the District, in a letter dated the 11th December, states that 'sickness is fearfully on the increase. Cholera is spreading, and has attacked almost every village. Five or six persons died here last night; and in one small village I visited, containing a population of 150 souls, 40 deaths were reported.' Again, on the 13th December: 'I find the people exceedingly apathetic in applying for relief; this I attribute chiefly to the lamentable amount of sickness.' The Superintendent of Cowcolly Lighthouse, in a letter dated 7th December, stated that 'the unfortunate inhabitants are dying by scores every day, from a disease very similar to cholera, brought on by using the water of this place. Every tank, pond, and well is stagnant with decaying matter, both animal and vegetable, besides containing a large admixture of salt water. I cannot accurately state the loss of life, but I am afraid the fatal malady has carried off more than the cyclone. There is utter desolation everywhere. Scarcely a human being is to be seen. The paddy, now ripe, is left in the fields for the cattle to destroy. When I asked any one the reason of this, the answer always was, "Who is to eat it?"' The deaths by sickness in the cold weather months, and which must in a great measure be attributed to the cyclone, are returned for the under-mentioned *parganás* as follow:—Gumgarh, 5734; Aurangnagar, 830; Kasbá Hijili, Pár Bisián, and Eranch, estimated about 6000; Kásimnagar, 496; Mahishádal, 4243; Tír-pára, 515; and Gumái, 526: total, 18,344, exclusive of the mortality in Southern Hijili and the *parganás* of Dattakharui, Kismat Patáspur, Narúmutá, Sujámutá, Jalámutá, Tamluk, and Doro Dumán. On the whole, the deaths by sickness are estimated to have been equal to those caused by storm and flood; making a total of at least 65,000; exclusive of the tracts not reported upon.

The loss of crops in the inundated tracts was not so serious as might have been expected. Happily the water drained off from a great portion of the land very quickly, and the deposit of salt did not destroy the rice. The land was soaked with fresh water at the time, and was therefore less liable to be impregnated with the

salt water poured over it than it would have been during the dry season. The Magistrate of the District, in a report on the subject, states that had the cyclone occurred in March or April, the productive powers of the land, wherever the salt water had reached it, would have been destroyed for the next three years. Even as it was, in parts where the water did not at once drain off, the crops were greatly injured; and in the *parganás* of Bhográi (since transferred to Balasor District), Khálisá Bhográi, and Gáomesh, the loss was estimated at one-fourth of the whole. In Gumgarh, Doro Dumnán, and Mahishádal the loss was worse, scarcely one-fourth of the crop being saved. Next to the loss of life, was the loss of private property in the shape of cattle and houses. The loss of cattle is estimated to have amounted to three or four times that of human life. The numbers reported for the following seven *parganás* were as under:—Gumgarh, 25,267; Aurangnagar, 231; Kásimnagar, 2772; Mahishádal, 16,573; Tírpára, 386; Gumái, 299; Tamluk (returns imperfect), 2384. Total ascertained, 47,912; besides Southern Hijili, and the *parganás* of Kasbá Hijili, Pár Bisián, Eranch, Dattakharui, Kismat Patáspur, Naruámutá, and Doro Dumnán, where the losses are known to have been very considerable, but from which no returns were received; and Jalámutá and Sujámutá, where the losses were comparatively small. With regard to the destruction of houses, it is reported that in Tamluk, out of 1400 houses, only 27 remained standing after the storm. This locality lay in the centre of the cyclone, and had to endure the climax of the gale. At many other places, however, an equal proportion of houses was blown down. Government also suffered serious loss, by damage to the embankments; by numerous large salt stores being blown down, and their contents washed away; by the destruction of public buildings; and lastly, by the remissions of revenue which it was necessary to make to the landholders in the inundated tracts.

RELIEF MEASURES for the homeless and starving peasantry were set on foot the moment the news of the distress reached Midnapur town. The European and Native gentlemen of the station immediately started a subscription, and placed the amount realized in the hands of the Magistrate, who, in concert with the Police Superintendent, forwarded supplies to the sufferers along the Ulubáriá road, and to Tamluk. A portion of the fund thus raised was also placed at the disposal of the Assistant Superintendent of Police at Tamluk and the Deputy Magistrate at Contai. Relief Committees were

formed at the two latter places under the superintendence of the local Officers ; and relief, so far as the limited means at their disposal would allow, was at once distributed.

A large public meeting was also held in Calcutta a few days after the catastrophe, and a subscription set on foot which raised upwards of £30,000 for the relief of the sufferers by the cyclone generally. Government relief was also liberally afforded, and Mr. D. J. M'Neile was appointed to officiate as a Joint Magistrate and Deputy Collector in the 24 Parganás and Midnapur, to proceed in charge of the supplies, and to remain in the distressed Districts with a view to direct the operations of relief. In the vicinity of Tamluk, the distress felt by the people after the cyclone was not found to be very great. Stores to the value of £100 were at once sent to Tamluk, with the intention that they should be distributed gratuitously. It was found, however, that the people were quite able and willing to pay for them, and that the distress at first existing was due in the main to the washing away of the bázár, with the stores in it, and the temporary inaccessibility of the other supplies. Labour, too, was urgently wanted for municipal purposes, by the merchants and shopkeepers, for rebuilding their houses, and by the Irrigation Canal Company, who sent large supplies of grain to their works, and were ready to give employment to all who wished it. The sum which the Magistrate had at his disposal from private local charity was quite equal to what was required at the time. When the operations under Mr. M'Neile commenced, Tamluk required no assistance. In the tract between Kukráhátí and the Rasúlpur river great distress was experienced, the country being difficult of access, owing to all the boats having been washed away by the cyclone. Steamers with stores were despatched down the river, and depots were established at Kukráhátí, Baliághátá, and Khejiri. The system of village relief adopted by the Assistant Magistrate was as follows :—Tickets were given to each distressed village for relief at the nearest depot, the villagers naming one person to receive the stores, who pledged himself to give the supplies he received, only to those who were physically unable to work, or who were unable to obtain it. The articles distributed as charity consisted of food, clothing, and agricultural implements. Relief was continued up to the end of December 1864.

The northern and western parts of Midnapur District were not much affected by the cyclone. At Garhbetá, in the north of the

District, the storm was but slightly felt; and no damage is said to have been done to the Police Stations of Sálbaní, Bhimpur, Gopíballabhpur, and Dántun. At Kespur, Náráyangarh, and Raghunáthpur, the damage was also inconsiderable. At Midnapur town the storm was violent, and indeed was so all over the eastern part of the District.

THE CLIMATE of Midnapur is similar to that of the adjacent District of the 24 Parganáas on the opposite side of the Húgli, and the District of Húgli to the north. The average mean temperature is about 80°; and the rainfall 65·84 inches. The Meteorological Department thus returns the monthly rainfall at the Civil Station of Midnapur in 1871:—January, *nil*; February, 0·15 inch; March, 7·34 inches; April, 3·34 inches; May, 9·46 inches; June, 8·44 inches; July, 12·39 inches; August, 14·95 inches; September, 12·34; October, 3·61; November and December, *nil*. Total rainfall for the year, 72·02 inches, or 6·18 inches above the reported average of the previous six years.

MEDICAL ASPECTS.—The prevailing diseases of Midnapur District are fevers, diarrhœa, dysentery, and cholera. Hepatitis is also frequently met with. Fever generally prevails in the months of October and November; the varieties most commonly met with being the quotidian-remittent and the bilious-remittent. Bilious varieties of fever have commonly a malarious origin, and a special tendency to relapse. Diarrhœa occurs chiefly in the months of March and April, and of August and September; the variety most commonly observed being bilious diarrhœa. Cholera is said to be endemic in the town and District, especially during the hot season. The Civil Surgeon reports that little or no improvement has taken place in the sanitary condition of the town or District of late years, and states that he is not aware that the character of the diseases has undergone any change.

EPIDEMICS.—The epidemic history of the District commences from the year 1860, but is very imperfect, the scanty medical records of the jail hospital being the only sources from which the Civil Surgeon has been able to gather a brief account of past epidemics. In 1860, cholera broke out in a severe epidemic form in the jail and throughout the town; 140 cases occurring in the jail, of which 66 proved fatal. No information is procurable regarding the extent to which it prevailed in the station, the time when it commenced, and the period during which it lasted, the number of people who

were attacked, or the proportion which recovered. In March 1861, 15 cases occurred in the jail, of which 5 proved fatal. In 1863 and 1864, epidemic cholera is said to have prevailed in the town and surrounding country, but the jail escaped the infection. In 1866, cholera occurred epidemically twice. The first outbreak commenced about the beginning of January, in the south of the District, and travelled northwards towards the station of Midnapur, where it made its appearance early in February, and attacked the jail on the 12th of the same month. Forty-two cases occurred in the jail hospital, of which 23 terminated fatally. The second epidemic of the year commenced suddenly in the month of June, breaking out simultaneously in the town and several other parts of the District. The outbreak terminated as suddenly as it had commenced, a heavy fall of rain of three days' duration taking place about the time the disease finally ceased. Both the epidemics of 1866 committed fearful ravages among the population, then also suffering from famine. The pestilence was believed to arise in a great measure from the tainted atmosphere, which was poisoned in almost every village by dead bodies. Epidemic cholera also occurred in 1868 and 1869. Police returns mention 1605 cases as having occurred in 1868, of which 1273 terminated fatally. The Civil Surgeon states that the measures generally adopted on an outbreak of cholera among the prisoners in the jail are as follow:—(1) The removal of the prisoners from the jail building for some time; (2) the free use of disinfectants; (3) change of diet, such as the substitution of *dāi*, or curds, for *dāl*, or pulse; (4) the burying of all excreta, and segregation of the prisoners when possible; (5) attention to the cooking of the food and the quality of the water supplied to the prisoners. Cholera, as seen in Midnapur, exhibits no striking characteristics different from its type in other Districts. As elsewhere in Lower Bengal, it generally makes its appearance during the hot and dry months of the year, when the atmosphere is stagnant and hazy. The great high road to the temple of Jagannāth crosses the District, and the crowds of pilgrims who pass along it on their way to and from the shrine are popularly blamed for importing the disease.

SMALLPOX.—A fearful epidemic of smallpox visited the station in 1866-67. The disease made its appearance in October 1866, amongst the wretched famine-stricken population. It increased in November, and was at its height in December and January. In

the month of March 1867 it assumed a milder form, gradually subsiding in April, and ceasing altogether in May. No statistics exist showing the number of people who were attacked, or the proportion which recovered. Inoculation was extensively practised at that time, and is said to have greatly intensified the outbreak. Inoculation is now prohibited within the town of Midnapur.

EPIDEMIC FEVER, of a similar character to that raging in Húglí and Bardwán, has also made its appearance in Midnapur District. In December 1872 it had assumed so serious a type, that a special report was called for by the Government of Bengal. A more detailed account of this fever, both from the engineering and medical points of view, will be found in my Statistical Account of Húglí District. I confine myself here to reproducing the reports of the Magistrate and Civil Surgeon of the District, upon the fever as it has exhibited itself in Midnapur. The Magistrate, in a letter dated 9th May 1873, writes thus:—

‘To understand precisely the circumstances of the affected area, (1) its physical characteristics and (2) the comparative density of the population should be clearly realized. The first characteristic feature of the District is the laterite soil extending over the north-west and north of the District. This is, of course, the highest land; and as the country there almost uniformly consists of alternate ridges and depressions, the drainage is complete.

‘From this table-land, however, the District by no means slopes away regularly towards the south or south-east, as might be expected. Headed by the laterite near Midnapur town, a valley starts in an eastern or even north-eastern direction towards the Rúpnráyan river above Kailá Ghát, which at its eastern end embraces, relatively to the surrounding drainage, the lowest land in the District.

‘It has long since been pointed out that, owing to the embanking system, the rivers, when they once get into the low level plains of the delta, are no longer the depressions, but the elevations, of the country: hence it is the simple truth to say, that this valley is bounded by the range of the Kásái river on the south, and that of the Silái on the north. A little above Pánchkurá, the Kásái, as is well known, was diverted some hundred years or more ago from its proper course, and carried southwards along what the people still call the *Nayá Kátán*, or new cut, by which it makes its way into the Haldí. Were it allowed to pursue the natural course which the levels of the country indicate, it would continue to be the boundary to this valley

till it fell into the Rúpnráyan above Kailá Ghát. Almost opposite to this southward deflection of the Kásái, the Silái turns in a north-western direction; and thus the valley opens out on both sides, embracing the whole of Parganá Chitwá (which is identical with Tháná Dáspur) on the north, and almost the whole of Parganá Kásijorá to the south. Even here, however, singular as it may seem, the slope is rather towards the north-east than to the south-east; this will be understood in a moment, from the single fact that the tides reach above Ghátál on the Silái, while they do not reach Pánchkurá on the Kásái. It naturally follows, that in the rains this valley becomes more or less a lagoon. Even at the longitude of Nawádá it has been found impossible to maintain a road across to the Silái or to Ghátál, important as such a road would be; while a little lower down, *i.e.* farther east, notably in Parganá Chitwá and round Ghátál itself, the people do not look to the autumn for their crop, but have introduced a vast system of irrigation in the cold weather, which is only feasible on account of the extreme depression of their country.

‘Though the species of valley described is immediately bounded by the embankments of the Silái and Kásái, the general depression passes beyond these rivers, and is found again on the other side. This is most conspicuously the case with the Silái, which forms a loop, the southernmost point of which is a mile north of Nárájol. Within this loop the country lies very low up to the latitude of Khirpái; while south of Nawádá the low-lying country extends along the line of the Kerái (a drainage *khál* over which the high-level canal is carried by an aqueduct) down to Pinglá, and southwards till it mingles with the saline tract. Dividing the District, as it may not inaccurately be divided, into (1) laterite, (2) alluvial but littoral and saliferous, (3) alluvial and non-littoral, the latter may be regarded as forming a rough triangle, the base of which is the Rúpnráyan from Tamluk to Ghátál, and the apex the town of Midnapur, or, more accurately, a point some six miles south-west of it.

‘I next propose to show how the population of the District is distributed over these three areas.

	Area. Square Miles.	Population.	Per square mile.
LATERITE THANAS.			
Bhimpur,	467	74,271	159
Jhārgāon,	169	45,560	269
Gopballabhpur,	516	120,310	233
Garhbetā,	437	145,264	332
Sālbani,	207	50,860	246
BORDER THANAS, <i>i.e.</i> LATERITE ALLUVIAL.			
Midnapur,	361	172,672	478
Kespur,	229	108,929	476
LATERITE LITTORAL.			
Nārāyāgarh,	300	129,553	432
LITTORAL.			
Dāntun,	217	112,372	518
Raghunāthpur,	126	54,579	433
Contai (Kānthi),	226	122,857	544
Egrā,	122	57,898	475
Patāspur,	117	81,123	693
Bhagwānpur,	184	89,812	488
Khejiri,	75	36,003	480
Nandigāon,	158	108,827	689
Sutāhātā,	111	53,546	482
Maslandpur,	111	64,188	578
LITTORAL ALLUVIAL.			
Sabang,	283	214,755	759
Tamluk,	77	77,341	1004
ALLUVIAL.			
Chandrakonā, three - fourths alluvial,	121	106,480	880
Ghātāl,	91	102,742	1129
Dāspur,	104	136,359	1311
Debrā,	109	110,747	1016
Pānchkurā,	164	163,915	999

‘The above figures show conclusively that the density of the population closely follows the character of the soil. The purely laterite *thānds* have a population varying from 159 to 332 per square mile, the purely littoral from 433 to 693, the purely alluvial from 880 to

1311; this last being Dáspur, which, as already explained, is the pit of the alluvial section, while 880 is Chandrakoná, the northern portion of which is high ground branching off from the laterite, and somewhat undulating, though not jungly or stony. The mixed *thánds* strictly conform to the same rule, the laterite littoral showing an average population of 432 to the square mile, laterite alluvial of 477, littoral alluvial of 810. Generally, therefore, the District may be classified into—(1) Laterite, with an area of 2200 square miles, and a population of 250 to the square mile; (2) Littoral, with an area of somewhat under 2000 square miles, and a population of 550 to the square mile, under which head I include all lands within 40 miles of the sea dyke; (3) Alluvial, with an area of 1000 square miles, and a population of 1150 to the square mile. It is only into a portion—but the most alluvial and the most densely populated portion—of this latter section that the fever has yet spread; and if Dr. Mathew's account of its progress is carefully examined in the map, it will, I think, appear that, though in many respects capricious in its action, it has not yet passed into any other tract, while it has deflected from its more natural line of progression from Húglí and Jahánábád westwards, and chosen a southerly and south-westerly direction, preferring the alluvial soil, and more particularly the depressed valley in the centre of it. It only remains to say, that from the Kásái, as from a high-level canal, natural channels, acting as distributaries, thread this valley between the two rivers; some of them joining the branches of the Silái, others serving as the streams for irrigating Dáspur in the cold weather. It has been frequently reported to Government on the irrigation side, that in the cold weather the main branch of the Kásái is dammed up by a *bándh* at Kápásdigrí, in accordance with a prescriptive right of the zamíndárs, so as to conduct the water into these channels. The natural drainage of this valley is north into the Silái through sluices, which, as Dr. Mathew states, are very defective, and west into the Rúpnaráyan also through sluices, *not* south into the Kásái.

‘With this preliminary description of the character of the soil and population, I now extract Dr. Mathew's account of the premonitory threatenings of the epidemic previous to 1872:—“Efore proceeding to describe the outbreak of epidemic fever that has taken place in certain quarters of this District during the past year, I purpose to briefly allude to the health of the District, with reference to the prevalence of fever, during the period over which my residence extends.

Shortly after my arrival here in August 1869, I heard that a fever, closely resembling the epidemic which during that season was causing terrible loss of life in Bardwán, had made its appearance along the line of country lying between Chandrakoná and Ghátál (at that time a portion of the Húglí District); but the disease spread no farther during that season, and the health of that portion of the Midnapur District bordering on the above-mentioned line of country was very fair during the autumn and cold season of 1869. During the months of August, September, and October 1870, malarial fever was widely spread over the alluvial tracts of Midnapur. The country bordering on Húglí suffered in common with other localities, such as Tamluk and the country forming the seaboard.

“I visited Tamluk and the surrounding villages in the October of that year, and found that the disease was nothing beyond an aggravation of the fever usually attendant on the rainy season. It caused little or no mortality, although numbers of those attacked suffered from enlargement of the spleen, and the other sequelæ of intermittent fever. On my return from Tamluk, the police reported that fever was very prevalent and fatal at Garhbetá and in the low-lying quarters of Bagrí Parganá; and dreading that the epidemic fever which had just then broken out at Jahánábád had advanced to Midnapur, I proceeded at once to Garhbetá, and after visiting several large villages in Bagrí, I travelled to Ghátál *via* Chandrakoná and Khirpái. During the trip I saw many scattered cases of fever; but the type of the disease differed in no perceptible way from the disease I had seen at Tamluk, and I accordingly reported to the Magistrate that there were no grounds for the alarming reports that had reached him regarding the state of the public health; and as the cold season advanced, those who had been attacked regained their usual health. No more was heard of the disease until October 1871, the police then reporting that fever had broken out and was causing many deaths at a place called Nawádá, a large village on the southern bank of the Kásái river, about 18 miles to the east of the Midnapur town. I visited the place early in November, and found that a fatal type of intermittent and remittent fever had broken out some two months before, and that, out of a population of about 4000, some 70 deaths had taken place.

“The surrounding villages, although subject to the same general insanitary influences, were comparatively healthy, although I now believe that the disease was more widely spread and fatal during

the latter months of 1871 than was suspected at the time. I found two native doctors in practice in the place. They stated that the disease was at its height during the latter part of September and the first three weeks of October. They had seen several cases of malignant remittent fever, but this was during the first outbreak; the type of the disease subsequently changing to the intermittent with the usual sequelæ. During the months of November and December the health of the people improved; and when I visited the place early in the following January, I found that no deaths from either fever or its results had taken place for several weeks, and that the people had lost in a great measure that unhealthy and anæmic appearance which had characterized them two months before. Scattered cases of fever had occurred in the surrounding villages, and I was inclined at the time to believe that their immunity from anything like an epidemic invasion was due to the fact of their having a better water supply from the adjacent river than the people of Nawádá, who used for drinking purposes the water of the filthy village tanks. A subsequent paragraph will, however, tend to show how untenable the theory of the fever-producing power of impure water was in this particular instance. About the end of November 1871 the police again reported that fever had broken out along the line of country bordering on Húglí, and that it was raging with particular severity at Dáspur and the adjacent villages. I arrived at the Dáspur *Tháná* on the 3d of December. I found that malarial fever had been prevalent for the last two months, that numerous deaths had taken place both in Dáspur and surrounding villages; and the people one and all declared that the sickness and mortality were far in excess of anything of which there was any record. During that trip I visited six large villages in *Tháná* Dáspur, and I afterwards proceeded along the Silái river to Ghátál. From inquiries instituted there and in the villages surrounding, I came to the conclusion that the epidemic fever which had prevailed at Jahánábád had advanced to the villages surrounding Ghátál, and was from thence spreading along the river-banks to Dáspur. I was greatly struck on this occasion by the unequal incidence of the disease,—not only in different villages, but in different houses in the same village; some households suffering severely, while others, as far as could be judged, under precisely the same circumstances, escaped altogether. It is noteworthy that, during the autumn of 1871, Tamluk Parganá and that quarter of the District forming the seaboard were remarkably free from all forms of

malarial disease; and the same remark applies to the laterite country, which may be said to form roughly about one-third of the area of the entire District."

'It will appear from the foregoing,' writes the Magistrate, 'that the fever at first made a sort of attempt, such as it still makes, to extend in the natural direction westwards to Khirpái, Chandrakoná, and Garhbetá,—the former alluvial, though high alluvial; the second on the edge of the laterite, though itself on alluvial soil; and the third in the middle of the laterite, though low-lying and surrounded by cultivation,—but that it failed to take any serious hold of those places, and then struck southwards into the low-lying, densely-populated tracts of Dáspur.' Dr. Mathew thus continues the narrative for the year 1872 :—'I now proceed to describe the outbreak of epidemic fever of the autumn of 1872. During the first week in September the police reported that fever had become very prevalent and fatal at Nárájol, and in several of the adjacent villages. Nárájol is situated on the banks of a narrow stream which connects the Silái and Kásái rivers. On the southern bank of this stream are situated the large and scattered villages of Bhawánípur, Hírátalá, Patná, Singágarh, etc., and still farther to the southward lies the large Parganá of Sháhpur; and attention is directed to these localities, as it was there the disease raged in a very deadly form from the very first. There are grounds for the belief that the disease had been very prevalent during the months of August, and that it was not until many deaths had taken place that the attention of the authorities was directed to the matter, or indeed that of the people residing in the locality. Before the end of October, reports were received from the police that malarial fever was rife and fatal within the jurisdictions of the Chandrakoná, Ghátál, Debrá, and Dáspur police stations. Within the jurisdiction of the latter is the town of Nárájol and the villages above alluded to.

'It will be thus observed, that a considerable tract of country was under the influence of the epidemic; but the incidence of the disease was irregular, both as regards its prevalence and fatality. As a rule, the villages in which the greatest mortality took place were those where the diseases prevailed during the previous years, *i.e.* the villages surrounding Ghátál, Dáspur, and its vicinity. An exception to this, however, is to be found in those villages near Nárájol, where, as before mentioned, the disease was more prevalent and deadly than in any other quarter of the District; and yet there is no

evidence to show that there was any unusual prevalence of sickness in these places during the year 1871. It will be observed that the villages of Bhawánípur, Híratálá, etc., are separated from Nárájol town and bázár by a narrow stream. There was no very marked difference in the sanitary condition of those places. Perhaps, if anything, Nárájol is less cumbered by jungle, and the houses are less crowded; yet the difference in the incidence of the disease is very marked. On the 7th of November 1872, I visited 22 houses in the village of Bhawánípur; two months previous to my visit they were occupied by 164 people; and of those, 90 were ill at the time of my visit, and 41 had died. In Nárájol I visited 69 houses, and found they were occupied by 325 people; and of these, 132 were ill, and only 12 had died. Many other instances could be cited, tending to show how eccentric the disease has been in its progress, and I will allude to one other. It will be remembered that the village of Nawádá suffered severely in 1871, and that during that season the smaller villages in its vicinity, on both banks of the Kásái river, suffered hardly at all; yet during the past season there was little or no sickness in Nawádá, but the surrounding villages had a severe visitation of fever. It is to be hoped that they may escape next year, and that the fever from which they suffered this year was only an aggravation of the disease usually attendant on the rainy season; but the persistence of the disease during the cold weather months, and the high rate of mortality, are suspicious; and, moreover, they lie in the track along which the disease appears to be advancing. It is a matter of no small difficulty to distinguish between the epidemic fever in the early periods of its invasion, and the aggravated malarial fever which now and then attacks particular villages, and which seems to depend on local sanitary influences. The inhabitants of a large village named Pinglá were very much alarmed during the past season on account of the prevalence of fever. It is situated some eight miles to the southward of Debrá, and is within the jurisdiction of the Sabang police circle. I visited the place early in December, and carefully inspected the village. The country between it and Debrá seemed fairly healthy, yet on my arrival at Pinglá I found that the people had been suffering much. I saw many cases of fever, and some deaths had taken place; but even then the worst was over, and before the end of December the health of the people had much improved, the very time when the mortality in the epidemic-stricken quarters was at its height. Ordinary malarial

fever was widely spread over the District during the past season. The localities where it most prevailed will be seen by a reference to the map. The quarters of the District where there was no unusual prevalence of malarial disease are the laterite country and the country forming the seaboard. Tamluk, long regarded as the most unhealthy quarters of the District, was again healthy during the past season; and there is a popular saying amongst the natives, and on the whole a true one, that the only quarters of the District that escaped fever during the past season were those where the soil is laterite and where the water is brackish.

'Dr. Mathew's remarks,' continues the Magistrate, 'so strongly support the position I have taken up, that the fever manifests a marked preference for, if it does not restrict itself to, low-lying non-littoral alluvial country, that it is but right to mention that he drew up his report without any consultation with me on this point, and was quite unaware of the special line of argument which I have followed. My own observation of the course of the fever entirely supports what the Civil Surgeon has written, and it will be observed that it again failed to make serious progress towards Chandrakoná. This is the more remarkable, because, as far as population alone is concerned, Khirpái and Chandrakoná probably surpass any part of the District, except the Sadr Station of Midnapur, in density of population. Khirpái, owing to the artificial arrangements of the Chaukidárf unions in its neighbourhood, is split into sections, and therefore does not figure high in the Census; but the villages grouped round Chandrakoná form the second largest town in the District, with an aggregate population of 22,000; and, so far as this cause and insanitation are concerned, it should have readily yielded to the fever. It escaped, however, as did Khirpái, with a moderate attack somewhat in excess of the ordinary malaria of the season, while the severe mortality, the traces of which struck one so painfully in passing through Dáspur and Nárájol, was fortunately absent.

'I am far from saying that Khirpái and Chandrakoná will escape: they are only on relatively high ground, not on the laterite; and I fear that the fever showed some slight tendency to gain ground in 1872. All I contend for is, that the epidemic seems to have experienced a marked check in this quarter, while it poured on in an unrestrained stream through Dáspur towards Parganá Nárájol and Sháhpur. Dr. Mathew continues:—"The physical aspect of the country where the epidemic fever prevailed, presents no features

that call for very special mention. The affected line of country may be briefly described as a flat alluvial plain, formed of the combined deltas of the Kásái and Silái rivers, and intersected by numerous *kháls*, all of which are embanked. Connecting these rivers is the stream on which the town of Nárájol stands, and to which allusion has already been made." As the earlier portion of this report shows, I cannot agree with Dr. Mathew in his estimate of the non-peculiarity of the physical features of the affected tract. I think the north-east slope of the country, and the very low level of Ghátál and Dáspur, as illustrated by the height of the tides, well worthy of careful attention ; but I need not again revert to the subject. He continues:—"During the rainy season the country is under rice cultivation, and is protected from inundation by a complicated system of embankments or *bándhs*. These embankments are a characteristic feature of this part of the country, forming in many places the only high roads, and are no doubt of immense importance. I now allude to what are known as the Government embankments, which follow the courses of the principal rivers.

“ In addition to these are another series of embankments known as the *samíndári* embankments, and with reference to the utility of these structures some doubts in many instances seem to exist. It would appear that in former years each landholder made such arrangements for protecting his land from inundation as seemed to him most suitable, and running in almost every direction. These embankments certainly act as potent obstructors of the natural drainage of the country ; and it is the opinion of the engineer in charge of the irrigation works in this District, that many of them might be removed with considerable advantage. The Government embankments no doubt control the floods, and their utility, as far as I know, has never been questioned ; but there can be very little doubt that they also obstruct the drainage of the country, and that to a very serious extent. The sluicing arrangements are lamentably deficient, and only allow surface water to flow off. They are much too few in number, and are, moreover, faulty in construction ; their floors are in many instances above the level of the country, so that their utility for drainage purposes may well be questioned. I am given to understand that estimates for repairing and constructing no less than 60 sluices on one embankment alone have been prepared ; and with a system of embankments that stand in need of such all-important alterations, I think it may be assumed that the surface

drainage of the country is obstructed, and the subsoil water-logged. The land lying between the embankment and the river-banks is considerably higher than the country surrounding, and the deposition of silt in seasons of flood is, I suppose, the chief cause of this. In many parts of the District the mulberry is extensively cultivated along the river-banks, and, owing to the fertilizing influences of the river, thrives well."

'To the above description I have little to add, and nothing to find fault with, unless it be the tenderness with which the Government embankments are treated. The river-beds having been raised by the constant deposit of silt, to abandon these embankments now would no doubt involve enormous tracts in total ruin; but it was this system of embanking which has deprived the country of its natural increment of deposit and kept it permanently depressed, while its drainage channels have gradually become irrigation channels, its waterways choked up, and the whole area water-logged.' As regards the state of villages, Dr. Mathew writes:—

'With the exception of some scattered mango topes, there is nothing like forest land in the affected quarters of the District, and but little jungle, except in the immediate neighbourhood of the villages, which are surrounded by bamboo, plantain trees, etc.; and during the rainy season there is, in addition, a considerable quantity of useless undergrowth. The sanitary condition of the villages, it is needless to say, is deplorably bad in every respect. Buried in jungle, studded with filthy tanks, houses crowded together and surrounded by all kinds of filth, are the most common characteristics of the villages of the District. The water-supply is contaminated, and the atmosphere laden with the gaseous products of rotting vegetation and the excreta of the inhabitants. This description applies with equal truth to villages where the fever manifested itself in its most fatal form, and where scarcely a case occurred. Every village that I have ever visited is pervaded by odours more or less offensive. Utterly regardless of every law that conduces to health, the villagers remain on year after year surrounded by all those oft-described sources of nuisance with which we are only too familiar; and that the people not only live in such places, but increase and multiply into the bargain, is a pretty clear proof that stench *per se* will not cause disease, and that its deleterious effects on health bear no proportion to its offensiveness.

'With reference to the people and their circumstances, I have

not much to remark. Comparatively, they are fairly housed, particularly in the larger villages. The better class of habitations are well raised, usually some three feet. The arrangement usually seen is a central court, with a narrow verandah running round all four sides, off which the rooms open, and which, as a rule, are only lighted and ventilated by the doorway. The houses are kept clean, and the rooms and verandahs are regularly plastered with cow-dung and mud. The poorer classes live in small huts about 14 x 10, greatest height about 12 feet. These structures are lighted and ventilated by the doorway. There is sometimes a narrow verandah in front, on which the residents sleep during the hot season. With regard to the circumstances of the people, I believe them to be moderately good. Since the year 1866 there has been no scarcity of food in the District; and there are no grounds for the belief that, in the quarters where fever prevailed, the condition of the people in this respect has undergone change during the past three years. From a sanitary point of view, however, it may be assumed that the habits of the people, and many of their customs, the air they breathe, the water they drink, and the food they eat, are all opposed to the attainment of health or vigour; and the only wonder is, that they possess either one or the other to the limited extent they do. In the Midnapur District at large the population is irregularly distributed. At Khirpái, within the jurisdiction of the Chandrakoná Tháná, the population is particularly dense. Indeed, at Khirpái, village succeeds village for nearly three miles with hardly a break, it being a matter of difficulty for the visitor to determine where one commences and the other ends.'

'Agreeing as I do entirely with all that is here written,' says the Magistrate, 'I have little to add to it. The description applies, as is well known, to all the alluvial tracts in Bengal where the drainage is choked up and the population overgrown. But if the most populated, it is also the wealthiest part of the District: whether tested by its crops, its wealth, its schools, or its castes, it ranks first. It is here that the only jute grown in the District is found; sugarcane is grown in abundance. Nawádá is the great emporium of *gur* or molasses in the District. Ghátál, again, is the wealthiest town in the District next to Midnapur; all the traffic of the northern section passes through it. A toll at its entrance, on a very bad unmetalled road, lets for over Rs. 4000 a year. Again, the *páth-sáls* that have come in under the new scheme in this neighbour-

hood outnumber those in the littoral tract as 3 to 1, and those in the laterite as 10 to 1. Here, too, the Bráhmans and Káyasths of the District are to be found, and the *bhadralok*, or gentlemen, are so numerous, that I have heard it said, with reference to this fever, "It is better to die in Dáspur than to live in one of the jungle *mahals*." As regards the character of the fever, Dr. Mathew writes :—

"On this subject, officers who have had much experience of the disease are, on the whole, pretty well agreed. Quinine stands first in estimation, especially in the early stages of the disease. In remittent fever it is usual to wait for the stage of remission before administering the antiperiodic; but it appears to me there are other stages of this disease in which quinine can be administered with signal advantage, and where it would not be judicious to delay its administration pending the action of purgatives and other remedies. However, in ordinary cases of fever, when there is much bilious derangement, with nausea, etc., purgatives and diaphoretics are generally called for, and the action of quinine seems to be rendered more certain and rapid by their use. I think it was Sir Ranald Martin who praised so much a powder composed of jalap, calomel, and tartar emetic. Two grains of the latter is the dose he advocates in the treatment of the fever of natives. I saw few cases during the past two years to whom I would have administered a dose of the kind, for it is unfortunately the case that the people of this District do not apply for treatment until the time for such remedies has passed. It is, however, chronic fever and its sequelæ that we are called upon most frequently to treat. To deal successfully with these cases appears to me one of the most perplexing and difficult tasks a medical officer can undertake. The condition of such patients is truly deplorable, and calculated to arouse our liveliest pity. It is probable that, if advice and medicine were placed within the reach of these people when first attacked, a vast amount of suffering and disease would be prevented. When once the extremities become dropsical, with enlargement of the liver and spleen, remedies such as we can bring within the reach of a vast proportion of the sufferers are of little avail. The stomach appears to me to participate more fully than is usually recognised in the general degeneration the tissues are involved in; and without for a moment denying the immense importance of nutritious food in the treatment of such cases, yet I am disposed to think that more benefit would be derived from it in the early stages of the disease, before

the digestive powers have become impaired. There is, however, one article of diet that I would like to see given to these people, and that is, good milk. In a great number of cases there is bowel disorder of some kind or other, and the late Dr. Fawcus placed great reliance on milk dietary in such cases, giving but little medicine. I would feel disposed to follow his advice to a certain extent, should it ever become my duty to superintend relief operations on an extended scale for this class of people. I should certainly prefer it to meat in any shape,—an article of diet to which the poor of this District are utterly unaccustomed, and which, particularly when sick, they are not likely to digest. With reference to the treatment of chronic fever and its results, the salts of iron, combined with the mineral acids, are the class of remedies which seem to answer best. For cases of fever where enlargement of the spleen only exists, quinine with large doses of sulphuric acid are remedies which often succeed; counter-irritation over the region of the spleen, with a weak preparation of the biniodide of mercury ointment in recent cases of fever, when no marked evidence of blood deterioration exists, is a remedy of great power. Dr. Maclean, of the Victoria Hospital, Netley, some time ago directed the attention of the profession to the use of this ointment in cases of splenic hypertrophy; and as far as my experience goes, it seems to be well worthy of the praises bestowed on it by that officer. In cases where marked pallor of the mucous surfaces exists, as in old cases of fever, this remedy does not seem to answer, its application being frequently followed by profuse salivation. On these two points I need make no comments.”

‘Dr. Mathew concludes his report with the subject of causation as follows:—“On this subject I have but few observations to offer. The disease is due to the action of a poison which we call malaria for want of a better name. Notwithstanding, however, the many, and indeed probable causes that have from time to time been discussed as tending to produce the epidemic, it appears to me that their disease-producing powers have always been admitted; and it is certainly very clear that all these conditions which are said to produce this epidemic have existed for many years without producing any other effect on the public health except those periodic outbreaks of fever with which every European resident in Bengal is familiar, and from which every native of the country suffers at some time or other. The appearance of the disease in the laterite tracts of

Bírbhúm clearly shows that a water-logged subsoil is not a necessary condition for its propagation. The epidemic fever, as far as I know, has not as yet made its appearance in any village in this District built on laterite soil, nor does the disease appear to be advancing in the direction of the laterite country. I regard it as an advance of the Húglí epidemic; but by what means the disease has been introduced I am not prepared to say. The disease is not spread by human intercourse, otherwise the station of Midnapur would have been the scene of an outbreak any time since 1869. Many people suffering from the epidemic fever of Húglí and Bardwán have come to Midnapur, and never introduced the disease into the town. During the past cold weather, numbers of people from Dáspur and Ghátál were treated at the charitable dispensary, many of whom are at present living in the town; yet no outbreak of the epidemic fever has occurred. Residence in an affected locality, no matter the condition of life, gives rise to the disease, and that with a certainty that few people, no matter how strongly they may deny the presence of a specific poison, would like to test in their own persons. I know of two instances of native gentlemen occupying influential and lucrative positions in this District visiting their homes in Bardwán in perfect health, and there contracting an attack of the prevailing fever, of which they both died in the course of a few months."

"I need only add, that all the facts in this District favour the prevailing opinion that the epidemic is due to a concurrence of causes partly known, partly unknown. It finds a congenial home in a depressed and water-logged country, a dense population, and all the insanitary surroundings which a dense population entails. On the other hand, it seems equally clear that it has a virus of its own independent of these causes, which may poison the air of a perfectly dry and sparsely-populated tract. As in the case of cholera, it is easy to see that certain conditions predispose places for its ravages, but unsafe to say that those conditions circumscribe its operations. The theory favoured by Colonel Haig is, it seems, obviously true to the extent that an enfeebled vitality due to poor and insufficient food, bad water, and impure air, render those attacked with the fever less capable of resisting its attacks than they would be if possessed of greater strength of constitution; but conspicuously wrong in so far as it seems to contend that the morbid influences to which they are exposed have undergone no change, but remain the same

in the affected tracts as they always were, while only the power of resisting them is weakened. That the air is positively tainted or poisoned, any one residing in it for a few days can easily ascertain; while a perfectly healthy and well-fed man transferred to an affected locality is attacked with the fever almost immediately. On the other hand, the poison seems only to affect human beings. The people of Dáspur assured me unanimously, that at the time when so many deaths were occurring, their cattle and dogs were perfectly healthy.' The Magistrate concludes his report with the following figures :—

STATEMENT showing the Number treated and the Number of Deaths in the Fever-stricken Villages of the Midnapur District from October 1872 to 31st of March 1873.

Names of Villages.	Total treated.	Total deaths.
Ghátál,	4,899	29
Dáspur,	9,728	93
Nárájol,	7,525	99
Sháhpur,	1,855	15
Total,	<u>24,007</u>	<u>236</u>

CATTLE EPIDEMICS.—A cattle plague of a serious character occurred in Midnapur in 1868. It first showed itself in the month of October, and was most virulent during December and January; gradually subsiding as the warm season approached, and terminating altogether in the month of April. It is said that the proportion of deaths amounted to three-fourths of the cattle affected. The symptoms were as follow :—The animal became feverish and restless, refusing food and drink; the palate and salivary glands then became inflamed, a profuse discharge of saliva took place, bloody purging generally set in, and the animal finally died of exhaustion.

FAIRS AS A CAUSE OF DISEASE.—The religious trading fairs and gatherings have long been regarded as sources of disease. The different shrines at which these assemblages are held are largely attended by pilgrims to or from the Temple of Jagannáth in Orissa. These pilgrims, who have often travelled from long distances, are generally footsore, enfeebled from the effects of exposure to the rain and sun, ill-clothed and ill-fed, and consequently predisposed to the diseases which the filthy state of the

shrines engenders. No sanitary precautions are taken at the local fairs ; and when the worship is over and the assembly dispersed, they are left covered with vegetable matter in all stages of decomposition. The malaria and filth in the vicinity of the shrines are said to poison the atmosphere for miles around.

THE KABIRAJs are native medical practitioners, not trained in our medical schools. The following is the mode of treatment commonly adopted by them in cases of fever. When first called in, the *kabiráj* invariably advises abstinence from all food. No matter what the type of the fever may be, fasting is rigidly enforced. After a few days, when the violence of the attack is supposed to have abated, fried rice and sugar-candy are generally given to the patient. Cold water is never allowed, no matter how urgent the thirst may be. An infusion of aniseed is administered by drops, or a rag soaked in it is given to the patient to suck, as the sole mitigation of the burning thirst. When cerebral symptoms occur, hot fomentations by means of heated earthen pots held near and around the patient's head are resorted to, and discontinued when violent perspiration is induced. Decoctions of vegetable drugs, such as senna, *nim* bark, *patal*, *muthá*, *haritaki*, etc. are freely given. If the fever lasts beyond the seventh day, pills or powders of various kinds are resorted to. The pills given in the early stages of the disease consist of vegetable preparations, aconite being a component part of almost every kind used. The pills are about the size of a pea, and in some instances contain over eighty ingredients. Drugs are never administered more than three times a day. The pills are usually powdered, and made into a kind of jelly before being taken. Should the fever last ten or twelve days with a fatal termination threatening, the *kabiráj* resorts to quinine, but only as a last resource. Arsenic is a remedy which native doctors employ with success in some cases of ague. In sub-acute or chronic cases, mineral drugs are freely administered, gold and silver being frequently given in these cases. Preparations of oil-seeds and clarified butter (*ghi*) are also much esteemed. When all remedies fail, a peculiar preparation of gold and mercury called *makaradhvaj* is relied on. As a class, the *kabirájs* know little or nothing of surgery. They sometimes undertake to cure syphilis, mercury being the chief remedy, but they administer it without the slightest discrimination. Profuse salivation, combined with sloughing of the groin, is not unfrequently the result of this treatment. The Civil Surgeon states, that although the

influence of the *kabirújs* over the people is declining, their treatment is preferred in long-standing cases of fever and dysentery.

THE INDIGENOUS VEGETABLE DRUGS in Midnapur are thus reported to me by the Civil Surgeon:—*Kath* (Acacia Catechu); *káibish* (Aconitum Napellus); *bákorh* (Adhatoda vasica); *bel* (*Ægle Marmelos*); *ghrita kumári* (Aloe perfoliata); Hijili *bádám* (Anacardium occidentale); *khas-khas* (Andropogon muricatum); China *bádám* (Arachis hypogæa); *sidl kántá* (Argemone Mexicana); *nim* (*Azadirachta Indica*); *máddr* (*Calotropis gigantea*); *jangli bádám*, (*Terminalia Catappa*); *pápaya* (*Carica Papaya*); *dád-mardan* (*Cassia alata*); *páti nebu* (*Citrus Limonum*); *bhánt* (*Clerodendron infortunatum*); *gálimchá* (*Cocculus cordifolius*); *lalítápát* (*Corchorus olitorius*); *jaiptál* (*Croton Tiglium*); *sashá* (*Cucumis sativus*); *kánkur* (*Cucumis utilissimus*); *haldí* (*Curcuma longa*); *mudhá* (*Cyperus rotundus*); *sáddá dhuturd* (*Datura alba*); *gáb* (*Diospyros embryopteris*); *ámlaki* (*Embllica officinalis*); *dyápán* (*Eupatorium Ayapana*); *manasá* (*Euphorbia ligularia*); *anantamúl* (*Hemidesmus Indicus*); *nil* (*Indigofera tinctoria*); *masiná* (*Linum usitatissimum*); arrow-root (*Maranta arundinacea*); *puiná* (*Mentha sativa*); *nágeswar* (*Mesua ferrea*); *chámphá* (*Michelia Champaca*); *álkusi* (*Mucuna pruriens*); *kaigphal* (*Flacourtia sapida*) *swet karabi* (*Nerium odorum, album*); *khct-páprá* (*Oldenlandia biflora*); *gandhabháduli* (*Pæderia foetida*); *kálá dáná* (*Pharbitis Nil*); *pán* (*Piper Betel*); *chítá* (*Plumbago zeylanica*); *dálim* (*Punica Granatum*); *bhelá* (*Semecarpus Anacardium*); *sáddá sarishá* (*Sinapis alba*); *káll sarishá* (*Sinapis nigra*); *kuchilá* (*Strychnos Nux-vomica*); *tentul* (*Tamarindus Indica*); *bahrá* (*Terminalia bellerica*); *haritaki* (*Terminalia Chebula*); *pániphál* (*Trapa bispinosa*); *patal* (*Trichosanthes dioica*); *kurchi* (*Wrightia antidysenterica*); *adrak* (*Zingiber officinale*). The only mineral drugs found in Midnapur District are salt, iron, and oxide of lead. I beg to acknowledge my obligations to Professor Balfour of Edinburgh for correcting the botanical names in the foregoing list.

MEDICAL CHARITIES.—The following table illustrates the relief afforded by the charitable dispensaries in the District in the year 1871, with the proportion of the cost borne by Government.

MEDICAL CHARITIES.

MEDICAL CHARITIES OF THE DISTRICT OF MIDNAPUR IN 1871.

DISPENSARIES.	Date of Establishment.	IN-DOOR PATIENTS.								OUT-DOOR PATIENTS.		Operations.		Total Income of Dispensaries, exclusive of European Medicines supplied free of Charge by Government	Total Expenditure, exclusive of European Medicines	Cost to Govt on Account of Salaries, etc.	Cost to Govt on Account of European Medicines.	Income from Local Subscriptions and other Sources.	
		Total Patients Treated.	Relieved or Re-covered.	Ceased to Attend.	Died.	Remaining at the end of the Year.	Percentage of Deaths to Treated.	Daily Average of Sick.	Total Treated.	Average Daily Attendance.	Capital.	Minor.							
(1) Midnapur Dispensary, . .	1835	369	224	47	83	15	22'49	17'06	4917	61'52	32	438	£ 424	£ 413	£ 248	£ 22	£ 176	s. 11	d. 11
(2) Rathgará Bázár Branch Dispensary, . .	1869	49	36	6	6	1	12'24	3'00	1918	16'00	16	4	£ 261	£ 170	£ 120	£ 4	£ 141	s. 1	d. 1
(3) Garhbetá Branch Dispensary, . .	1868	166	140	1	21	4	12'65	4'40	868	11'10	...	...	£ 105	£ 106	£ 64	£ 0	£ 41	s. 8	d. 3
(4) Tamluk Branch Dispensary, . .	1851	33	23	6	4	...	12'12	2'00	2107	14'00	2	83	£ 119	£ 106	£ 72	£ 0	£ 47	s. 8	d. 8
(5) Krishnaganj Branch Dispensary, . .	1869	...	...	...	...	...	...	...	1138	170'83	...	...	£ 96	£ 54	£ 48	£ 0	£ 48	s. 0	d. 0
Total, . .	...	617	423	60	114	20	18'47	...	10,948	...	50	525	£ 1007	£ 851	£ 552	£ 8	£ 455	s. 11	d. 11

STATISTICAL ACCOUNT
OF THE
DISTRICT OF HUGLI (HOOGHLY);
INCLUDING THE
MAGISTERIAL DISTRICT OF HOWRAH.

STATISTICAL ACCOUNT
OF THE
DISTRICT OF HUGLI (HOOGHLY);
INCLUDING THE
MAGISTERIAL DISTRICT OF HOWRAH.¹

THE DISTRICT OF HUGLI (including the Magistracy of Howrah) forms the south-eastern portion of the Bardwán Division, and is situated between $22^{\circ} 13' 0''$ and $23^{\circ} 14' 0''$ north latitude, and between $87^{\circ} 48' 0''$ and $88^{\circ} 34' 0''$ east longitude. It contains a total population of 1,488,556 souls, as ascertained by the Census of 1872; and a total area, after recent transfers to the neighbouring Districts of Midnapur and Bardwán, of $1482\frac{1}{2}$ square miles. The administrative Headquarters of the District, and principal Civil Station, is the town of Húglí, situated on the west bank of the Húglí River, in $22^{\circ} 54' 50''$ north latitude, and $88^{\circ} 26' 20''$ east longitude; but the largest and most important town is Howrah, situated on the west bank of the Húglí, opposite to Calcutta, in $22^{\circ} 35' 30''$ north latitude, and $88^{\circ} 23' 0''$ east longitude. The Census Area, on which the population, police, and crime percentages

¹ The principal official sources from which I have compiled this Statistical Account of Húglí District, including Howrah, are as follow:—(1) Answers to my five series of questions furnished by the District Officers, and signed by Mr. F. H. Pellew, C.S., and Mr. G. Smeaton, C.S.; (2) Report on the District of Bánkurá, by Colonel Gastrell, Revenue Surveyor; (3) Replies of the Collector of Húglí to a series of questions relating to the fish of the District; (4) Bengal Census Report, 1872, with subsequent District compilation in 1873, by Mr. C. F. Magrath, C.S., and Report on the indigenous agency employed in taking the Census; (5) Bábu Bholánáth Chandra's *Travels of a Hindu*; (6) Rev. Mr. Long's papers on 'The Banks of the Bhágirathí' and 'Localities of the Grand Trunk Road' published in the *Calcutta Review*, vols. vi. and xxi.; (7) Collector's Report on the Land Tenures of the District; (8) Rent Statistics furnished by the Collector; (9) Report of the Famine Commissioners, 1867; (10) Return of area,

are calculated in this Account, was taken approximately by planimeter at 1424 square miles. The exact area is 1482·46.

BOUNDARIES.—Húglí District is bounded on the north by Bardwán District; on the east by the Húglí River, separating it from the Districts of Nadiyá and the 24 Parganás; on the south by the Rúpnaráyan River, separating it from Midnapur District; and on the west by the Rúpnaráyan River separating it from Midnapur, and by Bardwán District.

JURISDICTION.—The revenue and civil jurisdiction of the Courts is conterminous throughout the whole District, but the Magisterial jurisdiction of Húglí ends in the south at a creek called the Báli khál; whence the jurisdiction of the Magistrate of Howrah commences, and extends to the southern boundary of the District bordering on Midnapur. About 1841, the magisterial work of the District having largely increased, the following Police Circles (*thánás*) were withdrawn from the Magisterial jurisdiction of Húglí, and incorporated into the Magistracy of Howrah:—namely, Rájápur (now called Jagatballabhpur), Amptá, Kotrá (now called Shampur), Bághnán, and Ulubáriá. The Howrah District thus constituted forms, with the exception of a portion of a Mandalghát Fiscal Division lying west of the Rúpnaráyan, a triangular area in the south of Húglí District. It is bounded on the north by an arbitrary line running in a westerly direction from the mouth of the Báli khál, passing north of the village of Báli on the Húglí, to the Dámodar River; thence for about eight miles up that river; and thence again west to the Rúpnaráyan. On the east, the boundary of Howrah is the river Húglí; and on the south and west, the Rúpnaráyan. The boundaries of the Magisterial District of Howrah are now under the consideration of Government, and the Magistrate

latitudes and longitudes, etc., furnished by the Surveyor-General; (11) Annual Reports of the Inspector-General of Police, particularly that for 1871; (12) Reports of the Inspector-General of Jails for 1870-71, with Special Jail Statistics for the years 1856-57, 1860-61, and 1870, compiled in his office; (13) Annual Reports of the Director of Public Instruction, with special Statistics compiled for the years 1856-57, 1860-61, and 1870-71; (14) Postal Statistics for the years 1861-62, 1865-66, and 1870-71, furnished by the Director-General of Post-Offices; (15) Medical Reports furnished to me by the Civil Surgeon of Howrah and the Sub-Assistant Surgeon of Serampur; (16) Reports on the Húglí fever, by Dr. D. B. Smith, Sanitary Commissioner of Bengal, and by Dr. Saunders, Deputy Inspector-General of Hospitals; (17) Colonel Haig's Report on the drainage of Húglí District, dated February 1873; (18) Report on the Charitable Dispensaries of Bengal for 1871, etc. etc.

reports that it is not certain that the boundaries mentioned above will be finally maintained.

The revenue jurisdiction of the District of Húglí with Howrah was established in 1819. Prior to that year it had formed a part of the Bardwán Collectorate, although it had been created a distinct Magistracy some years previously. The Resolution constituting the District of Húglí is dated 26th February 1819. Mr. R. Saunders, the first Collector, was appointed on the 1st March 1819.

Up to 1829 a single officer exercised the powers of Judge and Magistrate throughout the entire District of Húglí with Howrah; but owing to an increase of work in both departments, the offices were separated on the 26th September 1829, and Mr. H. B. Brownlow was appointed Magistrate of the District, the civil jurisdiction remaining with the Judge.

GENERAL ASPECT.—The District is flat, but with a gradual ascent towards the north-west and north, where it borders on Bardwán. The upper course of the Dámodar along the western border of the District is considerably higher than the Húglí which marks the eastern boundary. Several channels, dry during the greater portion of the year, run down this slope. The District is also intersected by numerous rivers, creeks, and water-courses called *kháls*. The scenery along the high-lying bank of the Húglí, which forms the eastern boundary of the District, has a quiet beauty of its own. Indeed, the whole bank of this river, from Guptipará in the extreme north of the District to Ulubáriá in the south, presents the appearance of a connected series of orchards and gardens, interspersed with factories, villages, and temples. In the interior of the District, to the west, the country is broken up by swamps and marshes, with a profusion of bamboo foliage. In the south, the road from Ulubáriá on the Húglí to Mahishrákhá on the Dámodar, and thence passing Bághnán to Kailá-ghát on the Rúpnáráyan, forms a sort of boundary between the two distinct tracts into which the District naturally divides itself. The country to the north of this line of road presents the same features as the rich rice-growing fields of the 24 Parganáas on the opposite bank of the Húglí; whilst the tract to the south of it partakes more of the fluvial character of the Districts of Eastern Bengal. The District of Húglí, like other deltaic regions, is intersected by large rivers liable to heavy floods, and bringing down a deposit of silt. The highest land lies nearest the rivers, and the lowest levels are found midway between two streams.

This fact explains the existence of the considerable marshes between the Húglí and the Dámodar Rivers, and also between the Dámodar and the Rúpnaráyan. The central marsh between the Dámodar and Rúpnaráyan, although of great extent in the rains, is not very deep, as it is drained by the Bakhshí khál into the latter river. The corresponding depression between the Húglí and the Dámodar is of much greater extent, and is divided into several sections. One lies to the north of the Káná *nadí*, and between that channel and the Ghiá. A second is situated between the Húglí and Saraswatí rivers. A third, and the most important, lies between the Saraswatí and the Káná Dámodar in the Howrah portion of the District, where it forms a permanent shallow lake. Generally speaking, the channels to the east of the Dámodar take a south-easterly direction towards the Húglí, and those on the west of the Dámodar a south-easterly course into that river. The Dámodar in turn falls into the Rúpnaráyan in the south of Khanakul Police Circle (*tháná*). The District is throughout of purely alluvial formation.

RIVERS.—The principal rivers in the District are the Húglí, the Dámodar, and the Rúpnaráyan; but besides them there are numerous *kháls* or drainage channels, mostly tidal offshoots navigable by boats of three and four tons burden for short distances inland. The chief *kháls* of the Húglí, proceeding from north to south, are the Bahuliá or Kámárgáchhí, the Kuntí or Nayásarái, the Saraswatí, Baidyabátí, Serampur, and Báli *kháls*, all within Húglí proper; and the Sánkrál, Khushbáriá, and Ulubáriá *kháls*, within the Howrah portion of the District. On the Dámodar there are from fifteen to twenty of these drainage channels, and on the Rúpnaráyan about ten or twelve which flow into it through Húglí District. None of these require special notice, except the Bakhshí *khál*, which falls into the Rúpnaráyan, but which is also connected with the Dámodar by the Gáighátí *khál*. This passage between the two rivers, although very tortuous, is much used by country boats.

THE HUGLI RIVER nowhere intersects Húglí District, but flows along its eastern boundary. It first touches the north-east corner of the District near the village of Guptipará, flowing southward past the villages of Srípur, Jirát, Nayásarái, Bánsbáriá, Húglí, Chinsurah, the French Settlement of Chandarnagar, popularly Chandernagore (correctly spelt Chandannagar), Baidyabátí, Serampur, Rishrá, Báli, Howrah, and the Botanical Gardens, whence, after running due west for a few miles, it takes a south-westerly course, past Fort

Gloucester, now in ruins, and Ulubáriá. A short distance south of this town it receives the waters of the Dámodar, and five miles farther down it is joined by the Rúpnáráyan, at which point it leaves the District. The Húglí is navigable by ships of the largest size as high as Howrah and Calcutta, and for native cargo boats of any size and inland steamers throughout its entire course in Húglí District and far beyond. The much dreaded 'James and Mary' Sands in the Húglí are situated between the mouths of the Dámodar and Rúpnáráyan, and are principally formed by the silt brought down by the former river. This obstacle to navigation began to act injuriously during the earlier half of the last century, and I shall presently give a description of it when treating of the Dámodar River. Changes in the course of the Húglí are of frequent occurrence, and consist in the shifting of its navigable channel from the eastern to the western bank, and *vice versa*. Such changes are owing to large accretions of sand deposited in the river bed during, and at the end of, the rainy season. The banks of the Húglí are generally sloping, and are highly cultivated. The river bed is clayey and sandy. The only important case of alluvion of late years in the bed of the Húglí is the formation of an island near Tribení. About thirty years ago, the *char* or island first rose above high-water level, and soon became covered with long grass. Some time afterwards, a colony of Buná coolies, from a neighbouring Indigo factory, established themselves on the *char*. They grow large quantities of cucumbers and other vegetables which find a ready market. These people have settled down on the island, and the Collector reports that they have adopted Bengali habits and customs.

THE RUPNARAYAN forms the western and southern boundary of Húglí District, with the exception of a few miles where it flows through Mandalghát Fiscal Division. The Rúpnáráyan flows from Bánkurá District under the name of the Dhálkisor or Dwárakeswar. It takes the name of Rúpnáráyan from the point where it receives the waters of the Silái (*Saildvati*), a tributary which flows into it from Midnapur District. From the point where it first touches Húglí District, the Rúpnáráyan flows in a S.E. direction till it receives the waters of the Bakhshí *khál* in Mandalghát *parganá*. From this point it flows in a tortuous course, but still generally in a south-easterly direction, to Kailá-ghát, where the High-Level Canal from Ulúbáriá to Midnapur town crosses the river, and thence in a more direct course to its confluence with the Húglí opposite Húglí Point.

The river is navigable by boats of three to four tons burden throughout the rainy season and during the greater part of the year, from its mouth up to the point where it first touches upon the District; but in its upper reaches within Bánkurá District, it can only be navigated by craft of two tons burden in the rainy months. The principal tributary of the Rúpnaráyan within Húglí District is the Bakhshí *khál*, already mentioned. The river is embanked all along its left bank, within Húglí District, from the point where it is joined by the Bakhshí *khál*, to its confluence with the Húglí. The embankments cease above the Bakhshí *khál*. The Rúpnaráyan is influenced by the tide as far as the limits of the Howrah portion of the District, and a heavy 'bore' ascends it as high as the mouth of the Bakhshí *khá*. The banks of the Rúpnaráyan, between the artificial embankment and the river bed, are much lower than those of the Dámodar; and the lands being more or less inundated by the spring tides in April and May, are liable to destructive impregnations of salt, and are unfit for cultivation unless small embankments (*bándhis*) are thrown up round the fields every year to keep the water out. The *chars* and banks of the Rúpnaráyan are in consequence not highly cultivated. Grass and *hoglá* reeds are the ordinary produce, except in years when the rains set in and close early, when a late rice crop can be planted in September. No cold weather crops, such as pulses and oil-seeds, can be grown along the river bank within the line of embankment. The Rúpnaráyan is not fordable at any season of the year within the limits of the District. Its principal ferry is at Kailá Ghát, on the high road to Midnapur.

THE DAMODAR is the only large river which intersects the District. It enters Húglí from Bardwán on the north, and proceeds in a southerly direction, past the villages of Amptá on its east and Bághnán on its west bank, to Mahishrákhá Ghát (where it is crossed by the Ulubáriá-Midnapur Canal), and thence flows in a southeasterly direction into the Húglí, opposite Faltá. During the dry season the river is navigable as far as Amptá in the Howrah District, or about twenty-five miles from its mouth, by native cargo boats of ten tons burden during the neap, and of twenty tons burden during the spring tides. There is very little river traffic beyond Amptá in the dry season. During the rains large quantities of coal come by it from the Ráníganj mines, in boats of twenty tons burden and upwards, to the depôt at Mahishrákhá, where they are tran-

shipped and forwarded, *via* the Ulubáriá Canal and Húglí River, to Calcutta. The river is embanked on both sides, but the works on the east side have been cut and allowed to fall into decay, and only the west embankment is now maintained by Government, as it was found that inundations on the east side of the river did little damage. The banks are well defined, and vary from six to twenty feet in height. Rice cultivation extends to the embankment, and between this and the river the land is generally well cultivated, and bears abundance of vegetables, mulberry, and other crops. In the northern parts of the District, however, the river banks are not so well cultivated, and many untilled and sandy wastes intervene, the result of inundations from the river. The bed of the Dámodar is sandy, and the Executive Engineer of the District reports that no change is at present taking place in its course. But the Collector states that people who have known the river for a long time say that the *char* at Mahishrákhá Ghát has increased in size within their memory; and from cases which have come under the notice of the Courts, it is certain that the main channel of the river opposite Amptá has shifted from the east to the west side of the stream. Apparently no extensive changes, however, are taking place in the river at present. No islands have been formed by the Dámodar, but there are several large grass-covered *chars*, some of them under cultivation. The river is influenced by the tide as high up as Amptá; and at Mahishrákhá, ten miles lower down, the rise is five feet at neap, and eight feet at spring tides. During the months of April, May, and June, a bore occurs, which is felt as high as about two miles above Mahishrákhá. The height of the wave varies according to the weather, but does not exceed four feet. In the northern part of the District the Dámodar is fordable at places during the dry season, but is nowhere fordable during the rains. Below Amptá it is nowhere fordable at any time of the year.

Formerly the Dámodar debouched into the Húglí more directly and much higher up; its old mouth being the present small water-course known as the Kánsoná *khál*. The main channel has now shifted considerably to the west, and one of the effects of the change has been the formation of the 'James and Mary' Sands (*jal-mári*, literally, the Deadly Water), situated between the mouths of the Dámodar and Rúpnaráyan. These sands are formed from the immense quantities of silt brought down annually by the floods

of the Húglí and Dámodar; the deposition of the suspended matter at this spot being caused by the floods or freshets in the Rúpnaráyan, which take place at the same time as those in the Dámodar, and thus dam up the Húglí by a backwater which checks its current and forces it to drop its silt.

Colonel Gastrell, in his Revenue Survey Report of Bánkurá District, dated March 1863, publishes two old charts of the Húglí in 1745 and 1755, in which these sands are shown in a very early stage of formation. I take the following paragraphs, illustrating the changes which have taken place in the river, from his Report :—

‘Whilst drawing up this Report, I obtained copies of two old charts of the river Húglí. These were copied from old records in the East India House, Leadenhall Street, by Mr. Barlow (retired Branch Pilot), and given to me by Mr. Robert Smart, Assistant Revenue Surveyor. Though this subject is foreign to the object of a simple Report on the District of Bánkurá, yet as these rivers (the Dámodar and Rúpnaráyan), and the question of the formation of the sands at their entrances into the Húglí, have been and still are of great interest, I trust I may be pardoned for wandering so far from my District. But I do so in the hopes that, by bringing these old charts to light, I may be doing some service, and perhaps some day, by their means, facilitate the removal of these dangerous sands, should they so increase as to interfere with the trade of such an important port as Calcutta.

‘It will be observed, by inspection of these old charts, that in former days the Rúpnaráyan was called in one “the Ganges,” in the other “the river Tomberlie;” and that it entered the river Húglí at Húglí Point, exactly as at present, and was a river of about the same size as it now is. Searching, however, for the Dámodar, we find only a small stream, called “the Rasphus River” in the one chart, and “the Moundelgatt River” in the other, at the same distance north of the Rúpnaráyan entrance as the present Dámodar enters. Higher up, however, we perceive a much larger stream, called the “Jan Perdo River” in both maps; this is shown to have entered the Húglí about five miles above the village of Ráipur, and corresponds with the present small Kánsóná *khál* or Kána Dámodar, which enters the Húglí five miles north of Ráipur and one mile north of Ulubáriá. It would appear, therefore, that this was then the principal outfall of the Dámodar waters into the Húglí, there

being no other large river that could have entered the Húglí at that point.

'The angle at which the "Jan Perdo" entered the Húglí was then very favourable for creating a good scour in the reaches below it. Accordingly, we see that in those days the channel of the river was better, *i.e.* showed deeper soundings from thence to the Rúpnaráyan than at present, when the old entrance of the Dámodar or "Jan Perdo" having closed, its floods have ceased to help the Húglí from that point. Moreover, the present stream of the Dámodar enters that of the Húglí River at almost a right angle; it, therefore, instead of helping the current of the latter river to overcome that of the Rúpnaráyan, retards it, dams it up, and, forming a backwater, causes the formation of the Faltá Sand, and facilitates at the same time the creation of a backwater from the Rúpnaráyan, from the effects of which the dangerous James and Mary Sands are mainly produced. According to these old charts, small sands did exist in this channel in those days. In one, indeed, we find a shoal laid down by that very name. But it was of very small size and importance in comparison with the present extent of these perilous sands, which extend from the Rúpnaráyan to the Dámodar River entrance. They were then apparently in the first stage of their formation.

'As before noticed, the flood-waters of the Dámodar have long been a source of terror to *zamindárs* and cultivators of land on its banks, and of trouble and expense to Government. Embankments have been erected, originally from Bará Indigo Factory in Bánkurá District, along the whole length of the stream southwards. But accidents were constantly happening; and when an embankment did give way, the consequences were most disastrous. Amongst other projects for improvement, that of allowing the surplus waters of the Dámodar to find their way into the Húglí above their present entrance, and through some of the *kháls* supposed to be old beds of the Dámodar, was proposed; and, though many natives were anxious to have a scheme of the kind carried out that they might benefit by the surplus waters, and so convert that which was a curse into a blessing, the project was set aside, seemingly because it was apprehended that it might prove injurious to the navigation of the Húglí if the waters were admitted above or below Calcutta, or at any other than the present entrance.

'A careful study of these old charts will, I think, show that no

such danger need have been apprehended could the old entrance into the Húglí (just above Ulubáriá) have been reopened, for here we see the main channel of the Dámodar River opening into the Húglí fourteen miles above the present entrance (then but a small stream), and a better channel than now existing in the Húglí. If, then, the surplus waters of the Dámodar could be again thrown into the Kánsóná *khál* or Kána Dámodar, and thence into the Húglí, it would simply be a reopening of a course once followed by nature, and which the soundings show to have been beneficial, rather than otherwise, to the navigation of the river Húglí.

‘Nothing could be more unhappy than the angles at which the two rivers, the Dámodar and Rúpnaráyan, now pour their waters into the Húglí, viz. at right angles to it, whereby both create extensive backwaters and form large sandbanks ; whereas, could the Dámodar be trained back into, and held in, its old channel, the combined force of its stream and of the Húglí, acting, as they then must do, in concert, would probably prove too strong for, and therefore overcome, the opposition met with at the Rúpnaráyan mouth ; in which case, instead of the backwater being in the Húglí, it would far more likely be in the Rúpnaráyan, and there in that case would the chief deposit of silt be formed ; the Faltá and James and Mary Sands, no longer having so great a backwater to favour their increase, would probably be gradually eroded and carried away, and the navigation of that part of the river be greatly improved. The chief advocates of the proposal to allow the surplus waters of the Dámodar floods to pass off into the Húglí appear to have been Major Kennedy, Consulting Engineer to Government, and Colonel Mactier, member of the late Military Board, who both advised that the Kána *nadí* should be deepened to encourage the escape of the waters.

‘No one, during the discussions that took place, seemed to be aware of the fact of the Dámodar having once run into the Húglí just north of Ulubáriá, where now only a small *khál*, the Kánsóná, marks the old bed. It may be objected that there is no proof that the Jan Perdo was the Dámodar ; but, seeing that no other large river exists or is known to have existed north of the Rúpnaráyan that could have entered the Húglí at that spot, it is fair to infer that it must have been the Dámodar. Indeed, a glance at the general run or direction of the *kháls*, old river beds, and *jhils*, between Salmampur on the Dámodar at the mouth of the old Kána *nadí* and Ulubáriá, would show very clearly that a connection between the

Dámodar and Húglí had once existed through them, even though we had not the evidence of the old charts to back the opinion. If necessary, a series of levels would determine the question.

‘The question is, How would the navigation of the channel of the Húglí, above the Kánsóná *khál*, be affected if the Dámodar emptied itself into that river there instead of where it does at present; and might not equally obstructive sands form there? There would at any rate, I think, be one great advantage could a stream of sufficient volume be secured in the Húglí just at and above the Rúpnaráyan junction to overcome the outflow of water from the latter river. It is this, that at present the portion of the Rúpnaráyan immediately adjoining the Húglí forms an immense and, I believe, constantly increasing tidal basin with a comparatively small outlet, and which contains during the dry season such a large quantity of tidal water that, during ebb, the force of the water running out of it being very much greater than that of the Húglí, it effectually dams up the current of the latter, and the consequence is that the water over the shoals between the Dámodar and Rúpnaráyan in the Húglí River is worse, and the sands more changeable in the dry than at any other season of the year. But if, by throwing the stream of the Dámodar into the Húglí at a good angle, the combined stream proved stronger than that of the Rúpnaráyan, the tidal basin now existing and enlarging would probably soon be acted on and silted up, and, as it silted, the quantity of water, and with it the force of current, would diminish and no longer possess the power of causing the formation of sands in the Húglí.’

The two principal branches, or rather offsets, of the Dámodar are the Káná *nadí*, and the Káná Dámodar or Kánsóná *khál* alluded to in the foregoing extract as having in the earlier part of the last century constituted the main stream of the Dámodar. Both these channels, which are now petty streams, formerly left the Dámodar near Salmábád in South Bardwán, but these old channels have filled up. The Káná *nadí* takes a south-easterly and then an easterly direction in Húglí District till it joins the Ghía *nadí*, when it turns to the north, and is called the Kuntí *nadí* or Nayásarái *khál*, falling into the Húglí at Nayásarái, thus establishing a connection between the Dámodar and the Húglí. The Káná Dámodar takes a southerly direction through Húglí District, flowing almost parallel to the Dámodar, towards the Rájpur *jhil*. In the lower portion of its course it is known as the Kánsóná *khál*, under which

name it enters the Húglí about five miles above Ráipur, and one mile north of Ulubáriá.

THE SARASWATI.—The only other great instance of silting up is that of the Saraswatí. This river was formerly the main stream of the Ganges, and large vessels sailed up it as far as Sátgón, the royal port of Bengal in the sixteenth century, and a great city, but now a small village. At the present day, the once famous river Saraswatí is a foul shallow creek, which branches off from the Húglí near Tribení. A branch of the ancient Saraswatí debouches into the Dámodar near Amptá, the main channel falling into the Húglí near Sánkrál, a short distance below the Calcutta Botanical Gardens. The silting up of the Saraswatí led to the establishment of the town and port of Húglí by the Portuguese in 1537. The remains of large ships are frequently discovered many feet deep in the ground which now covers the bed of the Saraswatí.

LAKES, ARTIFICIAL WATER-COURSES, ETC.—There is no lake, properly so called, in the District, although the Rájápur *jhil* almost deserves the name. This great swamp or marsh is a deep depression in the country between the Dámodar and the Húglí Rivers, situated in the north-eastern part of the Howrah portion of the District. Other considerable swamps or marshes are the Dánkúní *jhil*, area about 23 square miles; Samtí *jhil*, area 30 square miles; Khanyán *jhil*, area 18 square miles; and Dalkí *jhil*, area 12 square miles.

THE ULUBARIA AND MIDNAPUR HIGH-LEVEL CANAL is the principal artificial channel within the District. This canal, which is intended both for navigation and irrigation, was commenced in 1864, and has recently been completed and opened out throughout its entire length as far as the town of Midnapur, a total length of fifty-three miles. Two sections of the canal pass through Húglí District. The first starts from Ulubáriá on the Húglí and extends to the Dámodar, a distance of seven miles, with locks at both ends; the second section is an open navigable channel four miles in length, but without locks, and connects the Dámodar with the Rúpnráyan River. The other sections of the canal are situated within Midnapur. A more detailed description of the progress of this great work, with its estimated capabilities for irrigation and the conveyance of goods, together with a forecast of the probable financial results of the enterprise, will be found in my Statistical Account of Midnapur.

There are also five other old canals or *kháls* in the District. These are the Báli, Sankrál, Kálsápá, Mithákunda, Baidyabáti, and Pukuriá *kháls*, and they will be further alluded to in a subsequent section of this Statistical Account, when I treat of the means of communication at the disposal of the District. They are all more or less navigable throughout the year, and are principally used for the transport of grain.

RIVER-SIDE TOWNS.—The principal towns or villages inhabited by a large population living principally by river traffic, in Húglí District are the following :—Ulubáriá, Sáلكhiá, Sáoráphulí, Baidyabáti, Bhadreswar, Chinsurah, Húglí, Bábuganj, Tribení, and Balágarh. The traffic consists chiefly of rice, paddy, oilseeds, salt, pulses, clarified butter (*ghi*), and piece goods. In the Howrah portion of the District, with the exception of Ulubáriá and Sáلكhiá, there are no towns or large communities wholly or mainly supported by river traffic. An extensive trade, however, is carried on in rice and thatching-grass between the villages in the south and Calcutta, but it has not concentrated at any particular spot. The trade is conducted by means of boats owned by village merchants (*mahájans*) in Kotrá within Syámpur Police Circle (*tháná*), and other large villages. These boats ascend the numerous small *kháls* and water-courses near the mouths of the Dámodar and Rúpnaráyan Rivers, from November to February, collect the produce as they go along, and, on their return, dispose of it in the Calcutta market.

UTILIZATION OF THE WATER SUPPLY.—None of the non-navigable rivers or streams are utilized as a motive power for turning machinery. In the Howrah portion of the District, the Magistrate reports that the rivers have not sufficient fall to be applied as water-power. The Collector of Húglí, however, states that the upper portions of the Dámodar, where it forms rapids, are capable of being so utilized by the construction of weirs. The water of the rivers and *kháls* is extensively made use of for the purposes of irrigation, especially for the more valuable crops, such as indigo, mulberry, sugar-cane, cotton, jute, etc. Since the opening out of the Midnapur Canal, a considerable impetus has been given to irrigation, and the water is now taken to a considerable extent for the cultivation of rice. The Magistrate of Howrah, in his report to me, expresses his opinion that one of the causes of the defective drainage of the District is owing to the fact that, wherever water is wanted, it is obtained by unscrupulously damming up a channel or stream, no

matter whither it may lead. The water is raised and spread over the field to be irrigated by a rude but effective process; the machinery consisting simply of the hollowed-out trunk of a cocoa-nut tree, which is dipped in the water, and, being suddenly raised by means of a lever, pours the water into a small channel leading to the field.

FISHERIES.—There are no regular fishing towns or villages in Húglí, although fishing forms a part of the occupation of both men and women over a great portion of the District. The Collector of Húglí roughly estimates the proportion of the inhabitants that live by fishing at about two per cent. of the total population of the District. According to the Census of 1872, this would give a total fishing population of 29,770 souls. In the detailed statements of the Census Report, however, the number of Hindu fishing and boating castes is returned at 57,887, or 3·88 per cent. of the population, exclusive of the Muhammadans, who form 20 per cent. of the inhabitants of the District. The fishing population is most numerous in the villages bordering on the Rájápur *jhil*, and the Magistrate of Howrah is of opinion that in this locality about one-fourth of the people live by fishing. No revenue is derived from the fisheries, which are all of insignificant extent, and the Collector of Húglí reports that the Jáliás, or fishing caste, combined and successfully resisted an attempt to tax them for fishing in the rivers. Fish forms a very important article of diet of the people, and is largely consumed by both Hindus and Muhammadans. No limit is placed upon the destruction of the finny tribes—breeding fish and young fry are indiscriminately captured by means of traps, weirs, and nets with infinitesimally small meshes. Fry, besides being used as food, are also sold at the beginning of the rains to re-stock tanks, etc., where fish are privately bred. With regard to the question as to whether any measures are necessary for the conservation of the fish, the Collector of the District reports that fish are still very plentiful, that the supply does not seem to be falling off, and that there appears to be no necessity for any special measures for their preservation.

MARSH RECLAMATION.—The Rájápur *jhil* is the largest marsh in the District, and a partial attempt has been made to reclaim it by the construction of small embankments or *bándhs*, three or four feet high, around its borders. These are sufficient to keep out the water in all but very rainy seasons. The cultivators take their chance of the low embankment being overtopped by floods. All

varieties of ordinary long-stemmed rice, known by the general name of *haimantik* or winter rice, are cultivated here, but principally in the shallow water near the margin. Beyond the limits of rice cultivation, the *jhil* is overgrown with marsh grasses, weeds, etc., through which clear paths are kept for canoes and small boats, by means of which communication is maintained between the villages throughout the year. Reeds and canes do not grow in the marsh; the *hoglá* reed, which is a common growth in the shallow *kháls* and creeks, not thriving in its deeper waters. The Rájápur *jhil* is drained by the Kálsápá *khál*, which falls into the Húglí at the village of Kálsápá, a distance of sixteen miles from the marsh. In the dry season, boats of two or three tons burden proceed along about three-fourths of the length of this *khál*, as far as the influence of the tide reaches. During the rainy season they can sail to all parts of the marsh, the bridges along the embanked road which crosses the northern extremity of the *jhil* being raised so as to permit a laden boat to pass underneath. These boats carry on a traffic in rice, raw silk of inferior quality, sugar, jute, pulses, molasses (*gur*), straw, and earthen pots. The trade, however, is said to have diminished perceptibly of late years, in consequence of the channels having gradually silted up and become choked with weeds. The outlets on the opposite side of the marsh, towards the east, have been completely closed.

In Húglí proper, the marshy bed of the Dánkuní swamp, comprising an area of 23 square miles, and situated within a short distance of the Subdivisional Station of Serampur, has been drained by means of two canals with sluice-gates, at an expenditure of £30,088, or upwards of three *lakhs* of rupees. This amount, which was advanced by Government, will be eventually recovered from the proprietors of the lands benefited by it. The work was completed in August 1873, but owing to the scanty rainfall of 1873 and 1874, the canals have hitherto been chiefly useful for admitting the waters of the Húglí into the tract. In the Dánkuní *jhil*, as also in other marshy places, a coarse variety of reed called *mádurkátí*, used for matting, is grown. The *hoglá* reed, extensively used for thatching and for the walls of native huts, is grown upon a *char* of the Húglí near Sibpur.

THE LINES OF DRAINAGE in Húglí District are through large marshes and swamps, such as the Dánkuní, Kátíá, and Rájápur *jhils*, and communicate by means of *kháls* with the Húglí and

Dámodar rivers respectively on the east and west. These natural outlets, however, are now silting up; and the Collector reports that this, together with the obstruction offered to the Dámodar floods by means of the embankments, is said to be one of the causes of the terrible epidemic which has raged since 1862 in this once healthy District. A scheme for improving the sanitation of the District will be alluded to when I come to treat of the causes of the epidemic fever; and the drainage of the Dánkuni swamp above described forms part of the project.

JUNGLE PRODUCTS.—There are no extensive jungle tracts or pasture-grounds in the District; the saline *chars* near the mouth of the Rúpnráyan bearing only low scrub. Nor, with the exception of marsh reeds, are there any wild vegetable productions of marketable value beyond a few medicinal drugs, found in uncultivated tracts. The Bediyás, a gipsy-like wandering tribe, are the only caste who subsist by collecting and trading in jungle products.

EMBANKMENTS.—There are a number of important embankments in Húglí District; especially along the Dámodar and Rúpnráyan rivers. I shall treat of these afterwards, when dealing with the floods and food-destroying inundations to which the District is liable.

FERÆ NATURÆ.—Tigers are extremely rare, but leopards are said to be common in the north of the District. Wild hogs abound, and are very destructive within Húglí, Bánsbáriá, and Panduah Police Circles (*thánds*), and also in the south of the Howrah portion of the District. As regards small game, the rivers and marshes abound during the cold season, in snipe, teal, wild ducks, and other species of water-fowl. The river-fish met with in the District are the *hilsá*, *bhetki*, *chingrí* or prawn, *bodl*, *ritá*, *tapsi máchh* or mango fish, *khayrá*, *dir*, *páyráchándá*, *muji*, *phásá*, *chital*, and *pángás*. Among tank-fish, the principal are the following: *ruhi* or *rui*, *mirgal*, *kátlá*, *bátá*, *kálbosh*, *kai*, *mágur*, *singrí*, *látá*, *saul*, *tengrá*, and *pársá*. With the exception of the fisheries, the *feræ naturæ* are not made to contribute in any way towards the wealth of the District, nor is any trade carried on in wild-beast skins. Only a very trifling sum is annually spent in the shape of rewards for killing ferocious animals, and deaths by wild beasts are almost unknown. A few cases occasionally occur of children being carried off by jackals, but such accidents are very rare.

POPULATION.—The Collector of the District reported to me

in 1870 that, according to accepted authorities, the population of Húglí (including Howrah) amounted to 1,520,840. The District in that year embraced a larger area than at present.

The first systematic Census, taken in 1872, deals with the existing area of the District. The result disclosed a total population within this smaller area of 1,488,556 souls. The following paragraphs, condensed from the general Census Report of Bengal, illustrate the mode in which the Census of Húglí District was taken.

The demarcation operations of the re-survey of Húglí had just been completed (1871), and the Collector endeavoured to base the Census on some rough maps which were furnished to him by the Superintendent of Survey. 'These maps,' writes the Collector, 'showed the *halkás* or circuits on which it was desired that the Census should be based, but they did not show the name of each hamlet and village comprised in a circuit, and it was the latter which was found in the police lists. The two, therefore, did not correspond.' Two Deputy Collectors were employed for some time in assigning each hamlet and village to its proper *halká*, but the work proceeded so slowly that the Collector was obliged to give it up and to fall back on the lists of villages prepared by the police, from information given by the village watchmen. The Collector thus describes his mode of proceeding:—

'Feeling the impossibility of relying implicitly on these lists as the basis of the Census, I made the following arrangements for testing them. A special head-constable was despatched to each *tháná*, with the *tháná* list in his hand. He was to go to each village, apply to the man or men named as competent for enumerators, test their capacity, and report if they were incompetent, naming really competent men. He was further to explain to them the nature of their duty, and cause them to take a rough census at their leisure, as practice for the Census afterwards to be taken. As soon as the first list came in from the sub-inspectors, a very intelligent man was sent out on this work. The *tháná* sub-inspector was ordered to watch him. He was warned that he would be watched. A warning notice was posted up in each village of the *tháná*, telling the people who he was, how he might be known by his *parwáná* with the Magistrate's seal, what he had to do, etc.; and bidding all people, whilst assisting him in his legitimate business, at once send notice to the *tháná*, if either a suspected

impostor came to the village, or if the head-constable misbehaved. The man was given travelling allowance and money to buy paper, and was sent out at the beginning of August. Until this man had been absent in the *mufassal* for some weeks without any complaint of any kind being preferred against him, I refrained from sending any more. The ease with which extortion might be practised made caution necessary. Moreover, the difficulty which had been felt by an intelligent English-speaking *samindár*, living only five miles from the Headquarters Station, in deciding whether some people who came round demanding a levy of tolls were authorized by Government to do so or not, still further impressed on me the necessity for caution, notwithstanding time was slipping by. It was not, therefore, till September that any more men were sent out. Eventually eleven men were employed. These men had to work in the rains and all through the unhealthy season. Their work was most laborious, wading in the mud from village to village under the heat of the sun or in the drenching rain. One of them died after completing his work, and five others have been invalided.

‘The importance of testing the lists was shown at a very early date, as the head-constable, on returning from his first visit to *thánd* Bânsbâriá, reported that in many villages the persons given in the *thánd* list as competent enumerators were unable to read or write. The village watchmen, when questioned, merely stated that the educated people had threatened to beat them if they put down their names, so they had been obliged to write down the names of people whom they were not afraid of.’

In Húglí proper, the Census was taken simultaneously on the night of the 25th January. In the Howrah municipality, the Census was also taken on the 25th January; in the rest of the District it extended over a period from the 25th to the 31st January. The total number of enumerators employed was 5220. These enumerators were accompanied on their rounds by the village watchmen, who, from their intimate knowledge of the village concerns, were of great use in securing accuracy. With regard to other agency employed in taking the Census, the Collector writes as follows:—‘Amongst the names of those who assisted are several *mandals*, a *faujdar*, and some *bakhshís*, all of them remnants of the old village and rural police organization. This organization has, however, become so impaired in this District from neglect, that no definite use could be made of the services of such men. Where they

happened to be intelligent or influential, they were naturally applied to for assistance, but in very few villages are *mandals* of influence and intelligence to be found. In most villages there are no such people, and in many villages in which *mandals* are forthcoming, the title has degenerated into little more than a surname. It is my experience that only in *parganá* Bhursut, near the Dámodar, are there to be found *mandals* having any authority, and even in those villages their authority is ill-defined.

‘As regards *zamíndárs*, and their agents and servants the *gumáshtás* and *náibs*, many of these have rendered valuable service as enumerators, and by giving assistance in other ways. The District Superintendent of Police reports that the following classes have given assistance, and that they are placed in order according to the importance of the services rendered by each :—(1) Respectable persons of independent means ; (2) Educated unemployed young men ; (3) *Tálukdárs* ; (4) *Gumáshtás* of *Zamíndárs* ; (5) *Náibs* and other *Zamíndári* servants.’

In the Howrah portion of the District, the enumerators were the landholders’ *gumáshtás*, or respectable residents, as elsewhere. They were supervised by sub-inspectors and intelligent head-constables of police where available, and elsewhere by a paid agency. In the municipality a paid staff of enumerators was employed, the gratuitous services of schoolmasters and others being made use of for the purpose of supervision. Further details of the mode in which the Census of the town of Howrah was taken will be found on a subsequent page, when treating of the towns. The District Officers are of opinion that the results ascertained by the Census are fairly accurate. Before taking the Census in Húglí, a preliminary enumeration was made, and the difference between that and the final Census was only four per cent.

The following paragraphs, illustrating the comparative density of the population in various parts of the District, and of the effects of the epidemic fever in certain tracts, are extracted from a report by the Collector of the District, published as an Appendix to the Census Report :—‘The most striking thing about the Census returns for Húglí and Howrah is the extreme density of the population, in which respect this District appears to exceed every other in Bengal, even including the 24 *Parganá*s-cum-Calcutta. That District has an average density of 950 persons to the square mile. In Húglí and Howrah the population is 1045 to the square

mile. The most populous part of Húglí is a narrow strip stretching from below Howrah to above Tribení, bounded on the east by the Húglí, and on the west by some low rice-land and swamp, which separates this high and populous tract from another broader though less populous high strip which fringes the Saraswatí.

‘Going northwards from Howrah along the narrow strip on the banks of the Húglí, the area between the swamps and the river is one long suburb made up of Howrah, Ghusri, Báli, Uttarpará, Kotrang, Serampur, Baidyabátí, Bhadreswar, the French Settlement of Chandarnagar, Chinsurah, Húglí and Bánsbáriá, the population in which varies from 8148 per square mile to 3000; and on the second strip, along the Saraswatí and Kuntí *khdí*, the principal villages are Magrah, Rájhát, Nándá, Singur, Borá, Chanditalá, Baluti, Dumjor, Jhápardah, Mákardah, Mohiári, and Andul. Below Andul, the Saraswatí joins the Húglí, and the populous strip continues thence along the banks of the combined rivers. Along this strip, the density of population is not so easily determined, but it probably varies from one thousand to three thousand persons per square mile. The population of *tháná* Dumjor, if the Howrah municipality be excluded, is 1417 to the square mile; of Chanditalá, 1316 to the square mile; that of Baidyabátí, if the strip along the bank of the Húglí be excluded, is about 600; yet in all these *thánás* a large portion is swampy land, sparsely inhabited, or wholly uninhabited. It is clear, therefore, that the habitable portions in all these *thánás* must be peopled by at least a thousand persons to the square mile throughout.

‘If the fever which has raged in this District since 1860 were not still more destructive in Bardwán, where the population, though great (about the same in the fever-stricken parts as that of *tháná* Panduah), is much less than in Húglí, one would unhesitatingly attribute that scourge to excessive population. One would say these people live almost as thickly together as the people in towns, yet they have no special conservancy precautions, no means of removing night soil or refuse, no water supply, no drainage. They exhibit the necessities of a town population with the habits of a Bengal villager.

‘And it must be admitted that there would be some truth in this view. It is one that has often struck me, but which I held in abeyance till I could know what the population really was. The view, that want of conservancy and other civilised arrangements is the cause of the fever, has often been brought forward, and as often

met by the argument that Bengal habits have always been the same, but that fever does not always and everywhere prevail. The people have from time immemorial used the same tanks for all purposes, and have consigned their dirt to the open air in a humble dependence on the cleansing powers of nature ; and she has not generally failed them. But it seems perfectly certain, that though nature may be sufficient for the preservation of good air and water when the population is only three hundred to the square mile, she may imperfectly perform her task where the population is six hundred ; and when the population amounts to a thousand, air, water, and earth may alike become sodden with foul matter, unless artificial precautions are taken.

‘We find that, whereas B nsb ri  and Baidyab ti suffered much, H gli, Chinsurah, Serampur, and Howrah, though more populous, suffered little. Panduah covers just a square mile ; its present population is 3690. It is, in fact, nothing more than a large village—there is no conservancy, no arrangements such as prevail even in native towns. To look at, it is clean, open, and naturally well drained ; yet it suffered much from fever. In most populous countries, the centres of population are much more thickly inhabited than in H gli, but the rural parts are comparatively sparsely peopled. In H gli, on the contrary, the towns are thinly inhabited, and cover large spaces ; but the rural Districts are inhabited with a density to which few countries can present a parallel. In point of fact, H gli villages are too thinly inhabited to be able to afford the artificial devices which men congregated in large cities are driven to adopt, and are yet too large and thickly populated to be healthy without these devices. This population of from one thousand to eight thousand to the square mile, with deeply-rooted habits suited to, and indeed admirable in, a society which in a tropical country may number its one, two, or three hundred to the square mile, but quite unsuited to close living, presents a problem, and appears to the Englishman somewhat like what Frankenstein’s monster did to him. The population is poor and thin, if judged by the standard of towns. Institutions that would easily be maintained by populations of fifteen thousand to the square mile, cannot be forced upon such places as these without oppression, and yet the people may be dying from over population.

‘If, for example, the town of H gli had a population of a hundred thousand,—no great number, according to town statistics, for its six

square miles,—Serampur eighty thousand, and Howrah two hundred thousand, and if the rural population were nowhere more than three hundred to the square mile, we might have three rich and healthy municipalities and a still more healthy *mufassal*. In time, probably it will be so. Already people live in Calcutta on account of its salubrity since the water was laid on; and, as populations become civilised, there is always a tendency to congregate in towns. Already the population in this District, where thickest of all, viz. on the banks of the Húglí, enjoys substantial benefit, as the inhabitants are willing to admit, from municipal institutions; though even there the population is hardly thick enough to permit any but the most necessary expenditure, and the people are heavily taxed even for that. At present, however, every one lives in the country. There is his home; he often has a lodging in the city or *sadr* station, but never thinks of bringing his family there. He would much prefer leaving his womankind altogether unprotected in his village. Half the robberies which take place in this District are in the houses of women whose husbands and male relations are in Calcutta, Howrah, or Húglí. It is discouraging to think that the sanitary improvement of a District is dependent on the slow change of manners and habits which necessity inevitably produces; but there is no doubt that the peace which the English Government has afforded, has, in so rural a country as Bengal, resulted chiefly in an overgrowth of population in rural villages, which is at last becoming noticeable by what threatens to be universal unhealthiness. Another very interesting question which forces itself on one's attention at the sight of these Census returns, is the amount of decrease of population which has been caused in the District by this fever. If the population be now a thousand to the square mile, what was it before 1860?

‘Four of the *thánás* of the Subdivision of Jahánábád, in which fever has of late been most prevalent, have now been removed from the District; but it must be remembered that the fever was epidemic in the *thánás* which at present constitute the Húglí District for a longer period than it has raged in Jahánábád, viz. from 1860 to 1868, during which time Jahánábád was almost free of it, and that since then, notably in October 1871, there was much sickness in every *thána* of Húglí. Between 1860 and 1868, Bángsbárá, Panduah, Dwárbásíní, Dháníákhálí, towards the north; Sháhbázár, Paraumbá, Dhipá, Dwárhátá, and Krishnanagar, with other villages, on the

Káná Dámodar ; Chenchuá, Ajodhyá, Sonátikrí, Baliá, Jot Mádhav, and Bandipur, with other villages on the Káná *nadí*,—were so severely attacked, that by estimate at least one-third of their population perished in one year. These villages have never been free from sickness since ; and during the twelve years since the outbreak made its appearance, hundreds of others have suffered less severely. It may, I think, be considered certain that the population of Húglí was increasing before 1860, and but for the fever would be an increasing population still ; but that owing to this cause its population is less now than it was in 1860, and much less than it would have been but for the fever.'

The results of the Census disclosed a total population in Húglí District (including Howrah) of 1,488,556 souls inhabiting 322,703 houses, the average density of the population being 1045 souls to the square mile. The following table illustrates the distribution of the population in each Police Circle (*tháná*) and Subdivision. The table is reproduced as it stands in the Census Report of 1872. The subdivisional figures will be again presented on a subsequent page, when I come to treat of the political and administrative divisions of the District, but they may here be exhibited as a whole.

The number of males is 722,856, and of females 765,700 ; the proportion of males in the total population being 48·6 per cent., and of females 51·4. Classified according to age, the Census gives the following results:—Hindus—under twelve years of age, males 193,207, females 150,397 ; above twelve years of age, males 385,475, and females 457,356. Muhammadans—under twelve years of age, males 51,056, and females 39,205 ; above twelve years, males 91,408, and females 117,356. Christians—under twelve years of age, males 388, and females 357 ; above twelve years, males 975, and females 863. Other denominations not separately classified—under twelve years of age, males 46, and females 26 ; above twelve years, males 301, and females 140. Total population of all religions—under twelve years of age, males 244,697, and females 189,985 ; above twelve years, males 478,159, and females 575,715. As in other Districts of Bengal, the Census returns disclose a very small proportion of girls to boys, whilst in the population above twelve years of age the females are considerably in excess of the males. This discrepancy probably arises from the fact that natives consider

[*Sentence continued on p. 276.*

ABSTRACT OF THE AREA, POPULATION, ETC., OF EACH SUBDIVISION AND POLICE CIRCLE OF HUGLI
DISTRICT (INCLUDING HOWRAH).

Subdivision.	Police Circle (<i>Thaluk</i>).	Area in Square Miles.	Number of Villages, Mauzas, or Townships.	Number of Houses.	Total Population.	Averages according to the Census Report.				
						Persons per Sq. Mile.	Villages, Mauzas, or Townships, per Sq. Mile.	Persons per Village, or Township.	Houses per Sq. Mile.	Persons per House.
1. SADR.	Húgli.	62	107	19,135	67,538	1089	1.73	189	300	3.5
	Bánsbárá.	47	113	11,162	41,309	879	2.40	365	237	3.7
	Balgárah.	91	173	15,596	60,955	670	1.90	352	171	3.6
	Panduah.	115	178	21,580	77,332	672	1.55	434	186	3.6
	Dhaniákháli.	121	390	31,216	116,501	963	3.22	269	258	3.7
	<i>Subdivisional Total.</i>	436	961	98,689	363,635	834	2.20	378	226	3.7
2. SERAMPUR.	Serampur.	6	7	9,603	38,463	6411	1.16	5495	1600	4.0
	Raidyabáti.	63	138	19,516	86,291	1274	2.19	582	310	4.1
	Harijál.	138	331	25,096	111,689	809	2.40	337	182	4.5
	Krishnanagar.	71	164	14,550	69,280	976	2.31	422	205	4.7
	Chanditalá.	71	163	16,028	94,141	1326	2.30	578	254	5.2
	<i>Subdivisional Total.</i>	349	803	86,793	393,864	1129	2.30	490	249	4.5

Continued on next page.

ABSTRACT OF THE AREA, POPULATION, ETC., OF EACH SUBDIVISION AND POLICE CIRCLE OF HUGLI DISTRICT (INCLUDING HOWRAH)—continued.

Subdivision.	Police Circle (<i>Thana</i>).	Area in Square Miles.	Number of Villages Mauzas or Townships.	Number of Houses.	Total Population.	Averages according to the Census Report.				
						Persons per Sq. Mile.	Villages, Mauzas, or Townships, per Sq. Mile.	Persons per Village, or Township.	Houses per Sq. Mile.	Persons per House.
3. HOWRAH.	Howrah,	12	1	21,491	97,784	8149	'08	97,784	1791	4.5
	Dumjor,	84	159	21,528	119,037	1417	1'89	749	256	5.5
	Jagatballabhpur,	75	138	14,648	80,243	1070	1'84	181	195	5.5
	<i>Subdivisional Total,</i>	171	298	57,667	297,064	1737	1'74	987	337	5.2
4. MAHISHRAKHA,	Khanakul,	144	238	24,577	135,192	939	1'65	568	171	5.5
	Ampá,	101	212	21,840	110,374	1093	2'10	521	216	5.1
	Uhubará,	136	194	13,172	69,906	941	2'75	360	171	5.3
	Bághmán,			10,123						
	Syámpur,	87	309	9,842	60,423	695	3'55	196	113	6.1
	<i>Subdivisional Total,</i>	468	1128	79,554	433,993	927	2'41	385	170	5.5
	DISTRICT TOTAL,	1424	3190	322,793	1,488,556	1045	2'24	467	227	4.6

Sentence continued from p. 273.]

girls have attained womanhood at a much earlier age than boys attain manhood. The proportion of males in the total population of all ages, namely, 48·6 per cent., is probably correct. The number of insanes and persons otherwise afflicted with infirmities in Húglí District, is returned in the Census Report as follows :—Insanes, males 223, and females 53—total 276, or ·0185 per cent. of the total population ; idiots, males 78, and females 35—total 113, or ·0075 per cent. of the population ; deaf and dumb, males 401, and females 169—total 570, or ·0383 per cent. of the population ; blind, males 736, and females 374—total 1110, or ·0746 per cent. of the population ; lepers, males 787, and females 113—total 900, or ·0605 per cent. of the population. It is a curious circumstance, that although the females form 51·4 per cent. of the total population of the District, of the total number of persons afflicted with the above-mentioned infirmities only one-fourth were women. The total number of male infirm amounted to 2225, or ·30 per cent. of the male population ; while the number of female infirm was 744, or less than ·10 per cent. of the female population. The total of infirm of both sexes was 2969, or ·19 per cent. of the population.

OCCUPATIONS OF THE PEOPLE.—The following paragraphs relating to the occupations of the people are taken from the District Census Statements compiled by Mr. C. F. Magrath. They are, however, unavoidably imperfect in many respects, and must be accepted subject to the same cautions as those given in my Statistical Accounts of other Districts.

OCCUPATION OF MALES—CLASS I.—Persons employed under Government or Municipal or other local authorities :—Military officers, 2 ; Government police, 960 ; rural police, 5653 ; covenanted European officers, 11 ; subordinate judicial service, 3 ; subordinate executive service, 8 ; Public Works officials, 9 ; Post-Office officials, 170 ; ecclesiastical, 2 ; excise officer, 1 ; clerks, 88 ; municipal officers, 52 ; messengers (*piyááds*), 49 ; others, 11. Total of Class I., 7019.

CLASS II.—Professional persons, including ministers of religion, professors of education, law, medicine, fine arts, surveying and engineering :—(a) Religion—Ministers and missionaries, 11 ; Hindu priests (*purohits*), 11,442 ; spiritual guides (*gurus*), 306 ; astrologers and fortune-tellers (*dchárjyas*), 106 ; Muhammadan priests (*mullás*), 92 ; priests in charge of Hindu religious endowments (*mahants*), 3 ;

pilgrim guides (*paṇḍás*), 29; priests of family idols (*pujháris*), 121; temple attendants, 64; expounders of the *puráns* or Sacred Law (*kathaks*), 97. (b) Education—Schoolmasters, 1131; teachers of Sanskrit (*paṇḍits*), 170; professors of *tois* or indigenous Sanskrit schools (*adhyápakas*), 27; vernacular schoolmasters (*gurumahásays*), 138; Muhammadan clerks and interpreters (*munshís*), 22; students and scholars, 771; authors, 8. (c) Law—barristers, 2; pleaders, 121; law agents (*mukhtárs*), 237; stamp vendors, 38. (d) Medicine—physicians, 29; doctors, 479; Hindu medical practitioners (*kabirájs*), 1700; vaccinators, 11; cow-doctors (*gobaidyas*), 8; men-midwives, 33; compounders, 108. (e) Fine Arts—musicians, 1355; singers, 708; dancers, 6; actors, 34; jugglers, 6; painters, 165; snake-charmers, 57. (f) Surveyors or *ámíns*, 16; draughtsmen, 5. Total of Class II., 19,656.

CLASS III.—Persons in service, or performing personal offices:—Personal servants, 6663; cooks, 487; assistant cooks (*masálchís*), 2; barbers, 3989; washermen (*dhobás*), 3530; sweepers (*mihtárs*), 300; water-carriers (*bhistís*), 144; gardeners (*málís*), 1061; marriage registrars (*ghataks*), 46; porters and doorkeepers (*darwáns*), 1142; corpse-bearers (*murdá farásh*), 83; innkeepers, 16; unspecified, 14,269. Total of Class III., 31,732.

CLASS IV.—Persons engaged in agriculture, or with animals:—(a) In agriculture—Superior landlords (*zamíndárs*), 1454; large leaseholders (*ijáráddárs*), 74; holders of rent-free tenures (*lákhirádárs*), 2098; holders of rent-free military tenures (*jágráddárs*), 5; holders of rent-free charity lands (*ámáddárs*), 553; subordinate landlords (*tálukdárs*), 418; permanent leaseholders (*patníddárs*), 213; cultivators with rights of occupancy, 597; small estate holders (*mahaldárs*), 2; ordinary cultivators, 180,537; land-stewards (*gumáshtás*), 1500; rent-collectors (*tahsildárs*), 117; village accountants (*patwáris*), 84; holders of land on military service, or as servants of the landholder (*páiks*), 1653; *zamíndári* servants, 16; overseers (*dafáddárs*), 30; finance officers (*díwáns*), 2; village heads (*mandals*), 184; rent-collectors in charge of estates (*náibs*), 67; managers of estates, 3. (b) With animals—Horse dealer, 1; cattle dealers, 301; goat dealers, 74; pig dealers, 69; poultry dealers, 117; buffalo dealers, 5; shepherds, 1141; cow-herds, 1107; elephant drivers (*máhuts*), 4; grooms, 465; grass-cutters, 2; farriers and shoeing smiths (*nálbands*), 6; huntsmen (*shikáris*), 68. Total of Class IV., 192,967.

CLASS V.—Persons engaged in commerce or trade:—(a) In conveyance of persons and goods—Engineers, 46; engine-drivers, 137; stokers, 2; guards, 157; signallers, 15; pointsmen, 18; telegraph clerks, 15; stationmasters, 16; clerks, 34; *khalásis*, 828; plate-layer, 1; other railway servants, 1052; cabmen, 198; carters, 1583; bullock drivers, 837; palanquin bearers, 4241; shipmasters, 10; boatmen, 6409; divers, 35; boat owners, 213; lascars, 18; firemen, 47; warehouse keepers (*dratárs*), 16; markmen, 2; packers, 5; weighmen, 171. (b) In keeping and lending money, and in the sale of goods—Bankers and *mahájans*, 1172; money-changers, 45; cashiers, 147; money-lenders, 1268; merchants, 538; merchants in special goods, 72; commission agents (*páikárs*), 14; petty dealers (*bepáris*), 75; warehouse keepers (*goldárs*), 199; shopkeepers, 6919; petty shopkeepers (*mudís*), 3558; spice dealers and grocers (*banás*), 600; box-wallahs, 41; hawkers, 208; ironmongers (*bisátís*), 25; dealers in miscellaneous goods, 336; brokers (*dalás*), 362; banians, 2; clerks, 209; writers (*karánís*), 1247; out-door clerks (*sarkárs*), 831; vernacular clerks (*muharrís*), 1503; managers, 3; commission agents, 12. Total of Class V., 35,492.

CLASS VI.—Persons employed in mechanical arts, manufactures, and engineering operations, and in the sale of goods manufactured or prepared for consumption:—(a) Manufactures—Indigo manufacturers, 33; oil manufacturers, 163; leather workers, 5; fat workers, 19; cotton manufacturers, 23; jute manufacturers, 365; mechanical engineer, 1. (b) Constructive art—Contractors, 215; bricklayers (*ráj mistrís*), 3344; stone-masons, 13; brickmakers, 687; sawyers, 246; carpenters, 3855; thatchers, 1498; painters, 17; brick dealers, 658; well diggers, 2; pantile dealers, 46; carriage builders, 24; cart builders, 104; boat builders, 645; caulkers, 17. (c) Miscellaneous artisans—Blacksmiths, 3865; dealers in hardware, 39; coppersmiths, 6; braziers, 90; workers in bell metal (*kánsáris*), 941; tinmen, 233; *kalaigárs*, 19; goldsmiths, 3682; jewellers, 17; watchmakers, 11; potters, 4185; glass vendors, 14; stone vendors, 25; crockery vendors, 31; lime vendors, 538; cabinetmakers, 43; comb makers, 15; mat makers, 606; fan makers, 44; basket makers, 1478; whip makers, 14; toy makers, 41; bead makers, 42; hookah makers, 23; grindstone maker, 1; musical instrument makers, 4; lacquered ware makers, 242; makers of leaf plates, 2; garland makers, 328; gilders, 22; shell carvers, 200; cane workers, 114; loom maker, 1; cotton carders, 33; silk weavers, 149; cotton

weavers, 17,049; jute weavers, 310; coir weavers, 30; dyers, 28; tailors, 2790; cap makers, 15; shoemakers, 735; cloth vendors, 3488; ornament makers, 21; umbrella makers, 12; tape makers, 46; gunny-bag makers, 167; net makers, 12; cloth printers, 5; thread sellers, 326; embroiderers, 93; jute spinners, 102; cotton sellers, 34; silk dealers, 205; printers, 261; stationers, 239; bookbinders, 16; engravers, 29; picture sellers, 22; *daftris*, 16; book-sellers, 68; paper makers, 349; compositors, 278. (*d*) Dealers in vegetable food—Oil sellers, 3320; grain sellers, 381; flour sellers, 54; rice sellers, 717; spice sellers, 44; grain huskers, 810; bakers, 203; grain parchers, 130; costermongers, 778; confectioners, 1993; sellers of *gur*, 577. (*e*) Dealers in animal food—Butchers, 73; fishermen, 521; fishmongers, 10,944; bird-catchers, 7; milkmen, 3616; poulterers, 77; butter sellers, 12. (*f*) Dealers in drinks—Toddy sellers, 976; liquor shopkeepers, 491; sellers of soda water, 15. (*g*) Dealers in stimulants—Tobacco sellers, 316; opium sellers, 6; *ganjâ* seller, 1; *pân* sellers, 1331; *madat* sellers, 22. (*h*) Dealers in perfumes, drugs, medicines, etc.—Perfumers, 5; druggists, 3; salt sellers, 65; gunpowder sellers, 37; firework sellers, 11; sellers of soap, 8; sellers of *tikâ*, 197. (*i*) Dealers in vegetable substances—Firewood sellers, 912; timber sellers, 2; charcoal sellers, 39; cow-dung sellers, 6; bamboo sellers, 125; dealers in forage, 59; rope sellers, 612; woodcutters, 185; sellers of straw, 370. (*j*) Dealers in animal substances—Dealers in hides, 883; dealers in bones, 38; dealers in horns, 7; skinners and leather dealers (*châmârs*), 183. Total of Class VI., 86,986.

CLASS VII.—Miscellaneous persons, not classed otherwise:—Pensioners, 2429; gamblers, 7; beggars and paupers, 5750; apprentices, 12; labourers, 79,432; unemployed, 18,646; male children, 242,719. Total of Class VII., 348,995. Grand total of males, 722,856.

OCCUPATIONS OF FEMALES.—The general caution prefixed to the paragraphs regarding the occupations of the people, applies with special force to the section of the Census Report which deals with the occupations of women. The following figures are quoted from Mr. C. F. Magrath's District Census Compilation. Class I., *nil*. Class II., professional females:—Priestesses, 1226; female spiritual guides (*gurus*), 14; schoolmistresses, 31; nurse, 1; midwives, 44; *dâis*, 140; female medical practitioners (*kabirdjis*), 67; musicians, 3; singers, 14; jugglers, 2; dancer, 1; painters, 72. Total of Class

II., 1615. Class III., females in service, or performing personal offices:—Personal servants, 3934; *ayahs*, 2; nurses, 169; cooks, 120; *zamáná* attendants, 12; female barbers, 274; washerwomen, 769; female sweepers, 103; water carriers, 9; brothel-keeper, 1; prostitutes, 3124; unspecified, 12. Total of Class III., 8529. Class IV., females employed in agriculture, and with animals:—Superior landlords (*samindárs*), 768; holders of rent-free charity lands (*dimáddárs*), 59; permanent leaseholders (*patnidárs*), 23; holders of rent-free lands (*lákhirájdárs*), 524; subordinate landlords (*idálukddárs*), 28; female cultivators, with occupancy rights, 198; ordinary female cultivators, 4672; dealers in goats, 17; dealers in pigs, 2; dealers in poultry, 12; cowherds, 57. Total of Class IV., 6360. Class V., females engaged in commerce and trade:—Cart owners, 105; bullock-driver, 1; boat owners, 12; money-lenders, 216; shopkeepers, 1626; petty dealers (*bepáris*), 69. Total of Class V., 2029. Class VI., females employed in manufactures, and in the sale of goods manufactured or prepared for consumption:—Dealers in hardware, 11; dealers in pottery, 421; dealers in lime, 40; shell carvers, 2; cane workers, 4; basket makers, 294; mat makers, 63; broom sellers, 3; garland sellers, 81; bead makers, 108; toy makers, 14; spinners, 2375; weavers, 482; tailoresses, 165; jute sellers, 4; gunny-bag makers, 19; cotton sellers, 2; milliners, 2; ornament sellers, 38; thread sellers, 25; cloth vendors, 88; lacquered ware makers, 24; silk growers, 6; grain dealers, 41; rice dealers, 430; costermongers, 619; dealers in spices, 56; dealers in oil, 349; confectioners, 17; flour sellers, 272; grain parchers, 201; grain huskers, 14,593; sellers of *gur*, 24; *phariyás*, 12; fishwomen, 2552; milk sellers, 1043; butter sellers, 5; egg sellers, 11; toddy sellers, 44; spirit sellers, 9; tobacconists, 28; *pán* sellers, 114; opium sellers, 2; betel sellers, 68; *ganjé* seller, 1; tooth powder sellers, 5; charcoal sellers, 2; cow-dung sellers, 254; firewood sellers, 227; hide dealers, 34; rope sellers, 274; bamboo sellers, 16; sellers of straw and grass, 23. Total of Class VI., 25,597. Class VII., miscellaneous females, not classed separately:—House owners, 3; pensioners, 290; beggars and paupers, 4269; female labourers, 9671; unemployed females, 518,253; female children, 189,084. Total of Class VII., 721,570. Grand total of females, 765,700.

ETHNICAL DIVISION OF THE PEOPLE.—The bulk of the population consists of Hindus and Muhammadans, with a sprinkling of

Europeans and Eurasians, and some semi-aboriginal low castes, who have now adopted to a certain extent Hindu beliefs, manners, and customs. There are no aboriginal or hill tribes belonging to the District. A number of Dhángars and Santáls from Chhotá (Chutiá) Nágpur temporarily reside in it, however, and form a floating Cooly population, the individual members of which return to their homes when they have saved a little money, while their place is filled by others who come to the District to acquire a little hoard. The Census Report ethnically divides the population as follow :— Europeans and Non-Asiatics, 813 ; Eurasians, 557 ; Non-Indian Asiatics, 45 ; aboriginal tribes, 968 ; Semi-Hinduized aborigines, 260,278 ; Hindu castes, and people of Hindu origin, 926,862 ; Muhammadans, 299,025 ; and Maghs, 8. Total, 1,488,556.

I take the following details from Mr. C. F. Magrath's District Census compilation. The list of Hindu castes will be reproduced on a subsequent page, but arranged on a different system from that given here, and according to the rank which they hold in local public esteem.

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.	NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
I.—NON-ASIATICS.		2.—Semi-Hinduised Aborigines.	
<i>Europeans—</i>		Bágdí,	152,618
English,	506	Báhelíá,	18
Irish,	89	Báurí,	780
Scotch,	116	Bediyá,	109
Welsh,	2	Bhuiyá,	9
French,	14	Bind,	38
Portuguese,	50	Buná,	945
Dutch,	3	Chain,	21
German,	5	Chámár and Muchí,	24,396
Greek,	3	Kuril,	61
Unspecified,	10	Chandál,	21,568
Total,	798	Dom,	10,715
<i>Americans—</i>		Turi,	46
Canadian,	1	Dosadh,	461
West Indian,	4	Hári,	17,311
Unspecified,	7	Káorá,	26,481
Total,	12	Karangá,	1,787
<i>Australasian,</i>	3	Páli, etc.,	26
Total of Non-Asiatics,	813	Mál,	1,058
		Mihtar,	908
		Pási,	813
		Shikárí,	109
		Total,	260,278
II.—MIXED RACES.		3.—Hindus.	
Eurasian,	557	(i.) SUPERIOR CASTES.	
III.—ASIATICS.		Bráhmañ,	107,534
A.—Other than Natives of India and Burmah.		Rájput,	6,993
Jew,	12	Ghátwál,	8
Armenian,	29	Total,	114,535
Chinese,	4	(ii.) INTERMEDIATE CASTES.	
Total,	45	Káyasth,	38,722
B.—Natives of India and Burmah.		Bhát,	72
1.—Aboriginal Tribes.		Baidya,	3,023
Bhar,	150	Total,	41,817
Dhángar,	626	(iii.) TRADING CASTES.	
Khariá,	120	Agarwálá and Márwári,	84
Santál,	46	Khatri,	701
Kol,	6	Mahurí, etc.,	4
Bhumij,	13	Gandhbanik,	6,985
Paháriá,	7	Subarnabanik,	8,887
Total,	968	Total,	16,661

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.	NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
(iv.) PASTORAL CASTES.		(viii.) ARTISAN CASTES <i>—continued.</i>	
Goálá,	65,366	Sánkhári (Shell cutter),	968
Gareri,	2	Suri (Distiller),	6,509
Gujar,	6	Teli (Oilmen),	29,112
Total,	65,374	Kalu (ditto),	10,844
		Total,	90,372
(v.) CASTES ENGAGED IN PREPARING COOKED FOOD.		(ix.) WEAVER CASTES.	
Gánrár,	574	Tántí,	39,079
Madak,	8,278	Jogi,	8,060
Total,	8,852	Sukli,	4,458
		Kapáli,	1,724
		Total,	53,321
(vi.) AGRICULTURAL CASTES.		(x.) LABOURING CASTES.	
Sadgop,	63,774	Beldár, etc.,	7
Kaibartta,	288,621	Chunári,	1,365
Chásá Dhopá,	6,435	Patiál,	18
Báruí,	7,400	Total,	1,390
Támbuli,	7,325		
Máli,	2,652	(xi.) CASTES OCCUPIED IN SELLING FISH AND VEGETABLES.	
Koerí,	143	Matiá,	13
Kurmi,	696	Pájar,	15
Aguri,	1,141	Purá,	18
Total,	378,187	Total,	46
(vii.) CASTES ENGAGED CHIEFLY IN PERSONAL SERVICE.		(xii.) BOATING AND FISH- ING CASTES.	
Dhobá,	12,152	Jáliá,	15,829
Hajjám,	22,287	Pátni,	393
Behará,	5,190	Pod,	16,727
Duliyá,	24,475	Parui,	36
Káhár,	947	Tior,	23,051
Dháwá,	156	Keut,	18
Lodhá,	284	Málá,	1,424
Dhanuk,	162	Mánjhi,	396
Total,	65,653	Surahiyá,	13
(viii.) ARTISAN CASTES.		Total,	
Kámár (Blacksmith),	11,949		57,887
Kánsári (Brazier),	2,667	(xiii.) DANCER, MUSICIAN, BEGGAR, AND VAGABOND CASTES.	
Sonár (Goldsmith),	8,097	Báití, etc.,	1,636
Sutradhar (Carpenter),	5,108		
Kumár (Potter),	14,872		
Láherí (Lac worker),	246		

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.	NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
(xiv.) PERSONS ENUMERATED BY NATIONALITY ONLY.		5.— <i>Muhammadans.</i>	
Hindustáni,	104	Juláhá or Jolá,	53
Madrásí,	11	Mughul,	47
Telingá,	52	Pathán,	901
Panjábí,	1	Sayyid,	193
Uriyá,	815	Shaikh,	9,589
		Unspecified,	288,242
Total,	983	Total,	299,025
(xv.) PERSONS OF UNKNOWN OR UNSPECIFIED CASTES,	8,559	6.— <i>Burmese.</i>	
GRAND TOTAL OF HINDUS,	905,273	Maghs,	8
4.— <i>Persons of Hindu Origin not recognising Caste.</i>		TOTAL OF NATIVES OF INDIA,	1,487,141
Vaishnav,	20,373	TOTAL OF ASIATICS,	1,487,186
Sanyási,	26	GRAND TOTAL,	1,488,556
Bráhmás,	6		
Native Christians,	1,184		
Total,	21,589		

THERE IS NO IMMIGRATION into Huglí District, with the exception of a few Dhángars and Santáls from Chhotá (Chutiá) Nágpur, some low-caste Hindustánis from Behar, and a few Uriyás from Orissa. These people principally come to the Howrah portion of the District in search of work as coolies, road makers, or street scavengers. They do not permanently settle in the District, but, as already stated, return to their own homes when they have saved a little money. A few Musalmáns also come to the District from Chittagong, Silhet, and Dacca, principally in search of employment as boatmen; but these, too, return to their own homes as soon as they have amassed a hoard. There is no emigration from the District.

CASTES.—The following is a list of the ninety Hindu castes in Huglí District, arranged as far as possible in the order of precedence which they hold in local social esteem, and also showing the occupation of each caste. The numbers are taken from the Census Report of 1872. The following nine castes occupy the first place in public estimation:—(1) Bráhmans; members of the priesthood,

landholders, traders, and also employed in Government service as subordinate ministerial and executive officers; number in Húglí District in 1872, according to the Census Report, 107,534. A few Bráhmans are wealthy men, and a good many in moderate circumstances; but the majority are poor. The Bráhmans of Húglí chiefly belong to the Rárhoi class, but a few Bárendra Bráhmans are found at Serampur, Chátrá, and some other places. Although the Bráhmans are the first caste in the Hindu social system, several classes of them have become degraded from various causes, such as accepting gifts at religious or social ceremonies, or acting as priests to the low castes, etc. Nearly all the lower castes have Bráhman priests who officiate for them, and these take the name of the caste to which they have attached themselves, such as Kaibartta-Bráhmans, Goálá-Bráhmans, etc. These lapsed Bráhmans are utterly despised by their undegraded brethren. A pure Bráhman, who would take water from the hands of a Kaibartta or Goálá, would not touch it from the hands of a Bráhman who officiated as priest to those castes. Besides the Bráhmans who act as priests to the Kaibarttas, there is another class of Kaibartta-Bráhmans who are rather numerous in Húglí District. A legend states that the great sage Vyása, who compiled the Vedás and wrote the epic poem of the Mahábhárata, and who was himself the illegitimate son of a Kaibartta woman by a Bráhman father, raised several individuals of the Kaibartta caste into Bráhmans, and appointed them to officiate as priests to the rest. A similar tradition of Western India relates how the great Bráhman warrior Parasurám, the sixth incarnation of Vishnu, invested a number of Kaibartta fishermen of the Malabar coast with Bráhmanhood, tearing up their fishing nets for the sacred thread. The Húglí Kaibartta-Bráhmans deny the legendary story of their admission to Bráhmanhood, and assert themselves to be regular Bráhmans belonging to the Drávira *srení* or class, but who have fallen from pure Bráhmanhood. (2) The Kshattriyas formed the second or warrior caste in the ancient Hindu classification, but it is now believed that, at least in Bengal, no pure Kshattriyas exist. At the present day, the so-called Kshattriyas, generally called Khatris, are simply an up-country trading caste, who claim the rank of pure Kshattriyas. The Census Report returns them as traders, and gives their number at 701. A few of the caste are said to be well-to-do, while others are in middling circumstances. The Collector of Húglí reports that their status in the District is

very low as compared with that of their fellow-castemen in the Upper Provinces. (3) Rájput; employed in military and police service, and as messengers and doorkeepers. The caste properly belongs to Northern India, and claims Kshattriyahood; but, like the so-called Kshattriyas described above, the members of the caste in Húglí District are not held in very high social esteem. The Census Report returns their number in the District at 6993. (4) Ghátwál; a caste or class also claiming Kshattriyahood. They consist chiefly of people from the hilly parts of Western Bengal, who formerly held grants of rent-free service lands in return for the duty of protecting travellers through the hills, and keeping the passes free from robbers. At the present day they are principally employed on police service, or as messengers or doorkeepers. The caste only numbered 8 members in Húglí District in 1872, according to the Census Report. (5) Baidya, hereditary physicians by caste occupation, but most of them have now abandoned their ancient profession, and betaken themselves to other employments. Some of them are well-to-do landed proprietors, while others are employed as clerks or ministerial and executive officers in the subordinate Government Service. The Census Report returns their number at 3023. (6) Káyasth, or writer caste. At the present day, many members of this caste are wealthy landed proprietors, others are employed as *samíndári* servants, or in Government or private service. Number in 1872, according to the Census Report, 38,722. They are found in all varieties of worldly circumstances—some being wealthy men, others in well-to-do circumstances, and the remainder poor. The Káyasths of Húglí District belong principally to the Dakshín Rárho class, but a few Uttar Rárho Káyasth families live in Bánsbáriá, Rárho, Sáorárho, Báli, and other villages. (7) Bhát, heralds and genealogists, also bearers of complimentary letters or invitations on occasions of great ceremony. The caste claim to be lapsed Brárho, and wear the sacred thread; but it is doubtful if they have any right to the rank even of degraded Brárho. The Census Report classifies them as a separate caste, and returns their number in Húglí District at 72. (8) Achárho. These are degraded Brárho, who have lapsed from pure Brárho-hood from their practice of indiscriminately accepting alms from the low castes. They employ themselves as astrologers and fortune-tellers; they also calculate horoscopes, and fix upon auspicious days for particular ceremonies. The Achárho are not returned as a

separate caste in the Census Report, and their numbers are probably included with the Bráhmans. They are said to be nearly all fairly well off. (9) Márwárl and Agarwálá; returned under one caste in the Census Report as up-country traders, their number in Húglí District being set down at 84.

PURE SUDRA CASTES.—Next to the foregoing come fourteen pure Súdra castes, from whose hands a Bráhman may receive water without defilement. Originally these pure Súdra castes were only nine in number, called the *nabasáks*; but some of them have now split up into subdivisions, and others who did not originally belong to this respected class, have by their numbers or wealth forced themselves into it, and claimed recognition as belonging to the *nabasáks*. These castes vary in different Districts. In Huglí they are said to be as follows:—(10) Nápit, barbers, 22,287 in number; a few well to do, but the majority in poor circumstances. (11) Kámár, blacksmiths, 11,949 in number; a few of them well to do, but the majority in poor circumstances. (12) Kumár, potters, 14,872 in number; a few well off, but the majority poor. (13) Telí or Tíll. The hereditary employment of this caste was originally that of oil pressers and sellers,—one that is held in very low esteem; but most of its members have abandoned their ancient employment, and many of them are now wealthy grain merchants and traders. This is one of the castes which, by means of their influence and wealth, has been enabled to enforce respect, and to thrust itself forward into a higher rank than that formerly assigned to it. The Census Report returns the number of Telís in Húglí District at 29,112. (14) Támbullí, betel growers and sellers by caste occupation; but, like the Telís, they have now severed themselves from their hereditary profession, and by taking to other walks of life, by wealth and force of numbers have succeeded in pushing themselves into a forward rank of society. The Húglí Census Report returns their number in the District at 7,325. (15) Sadgop, the highest cultivating caste. Many of them have abandoned the profession of husbandry, and would now consider it degrading to hold the plough. These have betaken themselves to service or trade, and many have become wealthy men. Nearly all the members of the caste, however, are well off, very few being poor. The Census Report returns the number of Sadgops at 63,774. (16) Bárui, *pán* growers and sellers, 7400 in number; some of them are well off, but the majority are poor. (17) Málí or Málákar,

gardeners and makers of flower garlands, 2652 in number ; a few well off, but the majority poor. (18) Gandhbanik, traders and spice dealers, 6985 in number ; many wealthy, others in ordinary circumstances, and a few poor. (19) Sánkhárf, shell ornament makers, 968 in number ; mostly in ordinary circumstances. (20) Kánsárf, braziers and coppersmiths, 2667 in number ; some tolerably well to do, but the majority poor. (21) Agurí ; a respectable cultivating caste only recently sprung up, 1141 in number ; fairly well off. (22) Kaibarttas ; the most numerous caste in the District, numbering, according to the Census Report of 1872, 288,621. There is little doubt that this caste was one of the aboriginal tribes of this part of the country. They are spoken of in the Mahábhárata and in several of the ancient religious books of the Hindus ; and the caste is especially numerous in the Districts of Húglí, Midnapur, and the 24 Parganá. The Kaibarttas embraced Hinduism soon after the Aryans pushed themselves forward into Bengal, and succeeded in obtaining for themselves a fair rank in Hindu society. On p. 285 I mentioned the Kaibartta-Bráhmans, who are alleged to have been elevated to that dignity by the sage Vyása of the Mahábhárata. These Kaibartta-Bráhmans are divided into twelve *gotras* or *septs*, of which the following nine are the most important :—Sándilya, Hansarishi, Gautama, and Pundari, who are Kulins ; and Bharadwáj, Kásyapa, Raghurishi, Madhukulla, and Ghrita Kausika. The Kaibartta-Bráhmans reside in large numbers in villages west of Serampur, and in Dwárbásiní, near Húglí. The ordinary Kaibarttas are divided into two classes. The first consists of people who are generally well off, many being substantial landholders, some are employed in respectable service, and others follow agriculture as a profession. The second class of Kaibarttas are simply poor fishermen. The first class is regarded with considerable respect, and a Bráhman would receive water from the hands of a person belonging to it. The fisher-Kaibarttas, on the other hand, are greatly despised, and are looked down upon as belonging to one of the very low castes. (23) Mahurí, an up-country trading caste, only number 4 members in Húglí District according to the Census Report.

INTERMEDIATE SUDRA CASTES.—The following nineteen castes form the next class. They are neither esteemed nor despised by the higher-class Hindus, but are considered to possess a certain claim to respectability :—(24) Garerí, an up-country pastoral caste,

only numbering, according to the Census Report, 2 members in Húglí District. (25) Goálá, cow-herds, milk and butter sellers, some of them also cultivators, 65,366 in number; a few of them are said to be well off, but the majority are poor. (26) Gánrár, preparers and sellers of parched rice, 574 in number. (27) Madak, confectioners, 8278 in number; generally in poor circumstances. (28) Gharuí, not a separate caste, but a class of Kaibarttas living by cultivation and day labour; generally poor. Not classified separately in the Census Report, their number being probably included with the Kaibarttas. (29) Gujar, an up-country pastoral caste, only numbering 6 members in Húglí District, according to the Census Report. (30) Kurní, an up-country cultivating caste, 696 in number. (31) Koerí, cultivators, 143 in number. (32) Vaishnav, followers of the reformed Vishnuvite faith introduced by Chaitanya. This is rather a sect than a caste; indeed, the religion as preached by Chaitanya was based upon the renunciation of caste, and the religious equality of all men. At the present day, however, it has come to be looked upon as a caste, and the more wealthy members of the sect, which numbers some rich traders and well-to-do agriculturists, look down upon the lower classes of the sect, and are hardly to be distinguished from orthodox Hindus, with whom they mingle socially, and even intermarry. The lower classes of Vaishnavs are principally religious mendicants, many of the female followers of the sect being prostitutes. A more detailed description of the Vaishnav sect will be found in my Statistical Accounts of the 24 Parganá and Dacca Districts. The Census Report returns the number of Vaishnavs in Húglí at 20,373. (33) Chásá Dhopá, cultivators, 6435 in number; some tolerably well off, but many poor. (34) Tántí, weavers, 39,079 in number; a few in middling circumstances, but the majority poor. (35) Swarnakár or Sonár, gold and silver smiths, 8097 in number; tolerably well off. This is said to have been formerly one of the respected castes, but to have fallen in esteem from the propensity of its members to steal a portion of the gold or silver entrusted to them to make up. (36) Subarnabanik, bankers, jewellers, and public servants; 8887 in number; generally well off. (37) Chitrakar or Patidár, painters; a few well to do, but the majority poor; not mentioned as a separate caste in the Census Report. (38) Láherí, workers of lacquered ware, 246 in number. (39) Sutradhar or Chhutar, carpenters, 5108 in number; tolerably well to do. (40) Suklí, weavers, 4458 in

number. (41) Kapálí, weavers, 1724 in number. (42) Surí, distillers and wine sellers; some have now abandoned their caste occupation and taken to trade; 6509 in number.

LOW SÚDRA CASTES.—The following twenty-eight are the despised castes of Hindu Súdras. They are all poor. (43) Beldár, labourers, 7 in number. (44) Kalu, oil makers and sellers, 10,844 in number. (45) Chunárl, lime burners and sellers, 1365 in number. (46) Patiál, labourers, 18 in number. (47) Matia, fish sellers, 13 in number. (48) Purá, fish sellers, 18 in number. (49) Dhobá, washermen, 12,152 in number. (50) Dhunak, personal servants, 162 in number. (51) Jáliá, fishermen and boatmen, 15,829 in number. (52) Pod, fishermen and cultivators, 16,727 in number. (53) Parul, fishermen, 36 in number. (54) Tior, fishermen, 23,051 in number. (55) Mechuá, fishermen, not given as a separate caste in the Census Report. (56) Málá, fishermen and boatmen, 1424 in number. (57) Keut, fishermen, 18 in number. (58) Mánjhí, not a separate caste, but a class of boatmen who act as steerers; their number is returned separately in the Census Report at 396. (59) Surahiyá, fishermen (probably an up-country caste), 13 in number. (60) Behára, said to be not a separate caste, but a class of men who act as palanquin bearers, 5190 in number. (61) Káhár, an up-country caste of palanquin bearers, 947 in number. (62) Dháwá, fishermen, palanquin bearers, and also petty cultivators, 156 in number. (63) Duliya, fishermen and palanquin bearers, 24,475 in number. (64) Lodhá, personal servants, 284 in number. (65) Pájar, fish sellers, 15 in number. (66) Pátní, ferrymen, 393 in number. (67) Báití, makers of fine mats, 1636 in number. (68) Bágdi, fishermen and cultivators; they have also the reputation of being expert and daring thieves and robbers; a very numerous caste, the Census Report returning them at 152,618. (69) Chandál, cultivators and labourers, 21,568 in number. (70) Jogí, weavers, 8060 in number.

SEMI-ABORIGINAL CASTES.—The following twenty are semi-aboriginal or aboriginal castes, and form the very lowest classes of Hindus:—(71) Báheliá, cultivators and labourers, 18 in number. (72) Báurí, cultivators and labourers, 780 in number. (73) Bhuiyá, cultivators and labourers, 9 in number. (74) Bind, cultivators and labourers, 38 in number. (75) Chain, cultivators and labourers, 21 in number. (76) Kuril, cultivators and labourers, 61 in number. (77) Dom, cultivators, fishermen, and basketmakers,

10,715 in number. (78) Turí, musicians, 46 in number. (79) Dosadh, cultivators and labourers, 461 in number. (80) Karangá, cultivators and labourers, 1787 in number. (81) Pálí, cultivators and labourers, 26 in number. (82) Pásí, makers of toddy from date juice, 813 in number. (83) Chámár and Muchí; these are classified together in the Census Report, although in reality they are a distinct caste. They both follow the same occupation, that of shoemakers and dealers in leather, but they neither intermarry nor hold any intercommunication with each other. The Chámárs are an up-country caste, while the Muchís belong to Bengal. The Census Report returns the number of both castes at 24,396. (84) Bediyá, a wandering gipsy-like caste, who make a living by feats of jugglery, fortune-telling, the sale of petty ornaments, etc., and when these fail, by thieving; 109 in number. (85) Shikárí, hunters, 109 in number. (86) Mál, snake-charmers, 1058 in number. (87) Buná, petty cultivators and labourers, principally working on indigo factories, 945 in number. (88) Káorá, swineherds, 26,481 in number. (89) Hárí, swine keepers, 17,311 in number. (90) Mihtar, sweepers, 908 in number.

The foregoing list of Hindu castes is exclusive of 8559 persons of unknown or unspecified caste, 983 persons enumerated by nationality only, and 1216 persons of Hindu origin not recognising caste (except the Vaishnavs, who are included in the list). The list also includes a few returned as belonging to aboriginal tribes, but who have abandoned their ancient faiths and embraced Hinduism. There are no predatory clans or castes in Húglí District. The Magistrate of Howrah reports that the lower castes are fast rising into importance with the spread of education and increase of wealth. The class of artisans and skilled workmen is now being largely recruited from the agricultural castes, such as the Sadgops and Goálás.

RELIGIOUS DIVISION OF THE PEOPLE.—The great bulk of the inhabitants of the District (nearly 80 per cent.) are Hindus; the remainder consist of Muhammadans, with a small sprinkling of Christians, Bráhma Samáj followers, and a few hill people professing aboriginal faiths. According to the Census Report of 1872, the Hindus of Húglí District number 578,682 males and 607,753 females; total, 1,186,435, or 79·71 of the total population: proportion of Hindu males to total Hindu population, 48·8 per cent. The Census Report apparently includes the members of the Bráhma

Samáj, or reformed Theistic sect of Hindus, with the general Hindu population, as only 6 individuals are separately returned in the Census Report as professing the Bráhma faith. The Collector, however, estimates the number of Bráhma Samáj followers in the District at about 1200. I shall give further details of the Bráhma Samáj sect a little further on. The Muhammadans of Húglí District number 142,464 males and 156,561 females; total, 299,025, or 20·08 of the total population: proportion of Musalmán males to total Musalmán population, 47·6 per cent. Christians, 1363 males and 1220 females; total, 2583, or 0·17 per cent. of the total population: proportion of Christian males to total Christian population, 52·8 per cent. Other denominations, not separately classified—males, 347, and females, 166; total, 513, or 0·04 of the total population: proportion of males in total 'Other' population, 67·6 per cent.

THE MUHAMMADANS, as above mentioned, number 299,025, consisting of 142,464 males and 156,561 females, or 20·08 per cent. of the total population of the District; proportion of males in the total Muhammadan population, 47·6 per cent. As a rule, the Musalmán inhabitants of the District are well off, and most of them earn a comfortable livelihood by agriculture. The religion of Islám, however, has now ceased to make any further progress among the people. The existence of a large Muhammadan population in the District is accounted for by the fact that during Muhammadan rule, the town of Húglí was the residence of a Faujdár or military governor, whose duty it was to look after the European trading community and collect the imperial duties. The town of Panduah is said to have been colonised by a Muhammadan noble from Dehli, in the beginning of the fourteenth century; hence the Muhammadans of Panduah enjoy the reputation of greater purity of origin than others. Some families in the towns of Húglí and Panduah belong to the reforming sect of Musalmáns called Wahábís.

THE CHRISTIAN population of Húglí District numbers 2583 souls, viz. 1363 males and 1220 females. Deducting 1399 as the number of the European, Eurasian, and Armenian population, there remains a balance of 1184 representing the total native Christian population. In the Howrah portion of the District the native Christians are few in number and mostly poor. In Húglí proper, Christianity succeeded in gaining many proselytes in the days of the Baptist

missionaries, Carey, Marshman, and Ward, principally from among the low castes, and there is still a small community of these Christians in the town of Midnapur. At the present day, however, Christianity makes slow progress; and the converts are isolated instances, belonging to the classes of Hindu society more or less affected by English education and training. A missionary of the District returns the number of Protestant native Christians residing at Chinsurah, Húglí, and Bandel, at 74 in number. They nearly all belong to the higher castes, and hold respectable positions. Of these native Christians, 28 are Bráhmans by birth, 30 are Káyasths, 8 are Baniás, and 8 Muhammadans. They consist of twelve families, the heads of which occupy the following social positions:—1 missionary; 1 Deputy Magistrate; 1 Sub-Registrar; 5 school teachers; 1 soldier; 1 of independent means; 1 student; and 1 without occupation. They are nearly all in good circumstances, and most of them have property of their own. The native converts to Christianity in this District are principally obtained from the town population.

THE BRAHMA SAMAJ, or reformed Theistic sect of Hindus, have several settlements in the District, of which the principal are the following:—Howrah, Konnagar, Basuá, Balutí, Baidyabátí, Chinsurah, Húglí, and Chandarnagar. The Bráhma Samáj effects its principal settlements in the towns and large villages, and the Collector of the District reports that it has very little hold upon the rural population. The occupation and social position of the members of the reformed sect are good; they are generally well off in worldly circumstances, and most of them belong to the higher castes. The Census Report, in its detailed statements, only classifies 6 individuals in Húglí District as professing Bráhma-ism, the rest being probably included with the general Hindu population according to the caste to which they belong by birth. The Collector of the District, in 1870, estimated the number of Bráhma Samáj followers in Húglí District at about 1200.

There are no Buddhists or Jains in Húglí District.

DIVISION OF THE PEOPLE INTO TOWN AND COUNTRY.—Although the District is so densely populated, society is almost altogether rural. The Census Report returns only seven towns containing a population of five thousand souls or upwards, namely, Howrah, population, 97,784; Húglí and Chinsurah (given as one town in the Census Report), population, 34,761; Serampur, population,

24,440; Baidyabáti, population, 13,332; Bánsbáriá, population, 7861; Bhadreswar, population, 7417; and Kotrang, population, 6811,—total town population, 192,406, or 12·92 per cent. of the total population of the District. Details of the population of these seven towns will be found below. In the Howrah portion of the District, there is no doubt that the town population is increasing, owing to the fact of Howrah being situated close to Calcutta. By far the greater proportion of the work of administration is caused by the town population, and the Magistrate of Howrah reports that the average of the five years ending 1870 showed three police cases furnished from the town of Howrah for every one from the rest of the District. In Húglí proper, the population is still almost entirely rural, and there is but slight tendency at present on the part of the people to gather together into towns or seats of commerce and industry. Mr. C. F. Magrath's District Census Compilation thus classifies the villages and towns:—There are 1216 villages containing less than two hundred inhabitants; 1182 with from two to five hundred inhabitants; 526 with from five hundred to a thousand; 210 small towns with from one to two thousand; 32 from two to three thousand; 14 from three to four thousand; 3 from four to five thousand; 3 towns from five to ten thousand; 1 from ten to fifteen thousand; 2 from twenty to fifty thousand; and one with upwards of fifty thousand inhabitants,—total number of towns and villages, 3190. The following is a list of the chief towns, with their population, etc., as ascertained by the Census of 1872:—

HOWRAH, the largest and most important town in the District, and headquarters of the Magisterial District of Howrah, is situated on the west bank of the Húglí, opposite Calcutta, in 22° 35' 30" north latitude, and 88° 23' 0" east longitude. At the end of the last century, Howrah is described in the Board of Revenue's Records as a small village, and in 1785 it was held by a Mr. Lovett, who petitioned the Board to be allowed to relinquish it. Since that time it has risen with the growth of Calcutta, and is now a large town, with a Magistrate, Subordinate Judge, etc., of its own. The town and suburbs constitute a municipality—by far the largest and most important in Húglí District. In 1871-72, according to the Census Returns, the gross municipal income of Howrah, including collections on account of arrears of previous years, amounted to £20,654, 16s. od., and the expenditure to £16,305, 18s. od. This

would give an average rate of taxation of 4s. 2½d. per head; but it does not fairly represent the pressure of municipal taxation on the people. The actual net income of the year 1871-72, excluding balance in hand from the previous year, and collections of arrears of house rates for previous years, was £13,994, 12s. od., showing the average rate of taxation to be 2s. 10¼d. per head of the town population.

The town of Howrah is lighted with gas; it contains several large and important dockyards, and it is also the Bengal terminus of the East Indian Railway. Mills and manufactures of various sorts are rapidly developing. Communication with Calcutta is carried on by powerful ferry steamers, which ply at all hours of the day, in connection with the railway. A massive pontoon bridge was constructed across the Húglí to Calcutta in 1873-4, and is now open for traffic. Howrah is also a suburban residence for people who have their places of business in Calcutta. The suburbs of Howrah are Sibpur and Rámkrishnapur to the south, and Sálkhiá to the north. Sibpur, situated opposite Fort William, was a small village at the commencement of the century, but is now a flourishing little town, inhabited chiefly by clerks employed in Government or mercantile offices in Calcutta. On the river side it contains a manufactory known as the Albion Works, consisting of a flour-mill and a distillery; also a dockyard and a sawmill. To the south of Sibpur are the Government Botanical Gardens and Bishop's College.

The total area of Howrah and its suburbs comprises 11·05 square miles, the boundaries of which are laid down as under:— 'A line, commencing from the mouth of the Báli *khál*, and following the south bank of the *khál* westward to the railway bridge; thence southwards along the western boundary of the Railway Company's property to the level-crossing at the old Benares road; thence along the north side of the Benares road to its junction with the Belgáchhiá road; thence along the western side of the Belgáchhiá road for a distance of 3500 feet; thence by a direct line running west across the fields to a point on the Mákurdah road 2650 feet west of the Bántrá toll-house; thence along the Ichhápur village path, marked by pillars, to its junction with the road from Sátrágáchhí to Mahiári; thence westward along the last-mentioned road to the garden of Sítáram Khán; thence in a direct line running south-south-west across the fields to the *pípal* tank in North Bákshará; thence south-south-west along the

Bákhshará village road to the Bákhshará *khál*; thence in a direct line running south-east across the fields to a point on the Botanical *khál* 660 feet north of the bridge on the Howrah and Mahiári road; thence along the west bank of the *khál* to a point 1460 feet south of the said bridge; thence along the northern and eastern boundary of the Botanical Garden to the bank of the Húglí; and thence northwards along the river bank to the mouth of the Báli *khál*.

Special arrangements were made for taking the Census of the town and suburbs of Howrah by the Municipality, and the following is condensed from a report submitted by the Magistrate to the Secretary to the Government of Bengal, dated 13th March 1873. For the purposes of the Census of Howrah, the town, which comprises an area of $11\frac{1}{2}$ square miles, was divided into two parts, the line of railway forming the division. Each of the two divisions was placed under a Deputy Collector, who marked out the lesser circles, and appointed supervisors. The latter were schoolmasters or other educated natives of the town, whose co-operation could be enlisted without expense. Under these supervisors, 265 enumerators were distributed, and worked under their directions; the enumerators being paid 4 rupees or 8s. each.

The form adopted for taking the Census of Howrah was the same as that used in Calcutta, and the Census was taken simultaneously with that of Calcutta and the suburbs. The enumeration of the land and of the river population, as well as of the railway passengers, was taken on the night of the 25th January 1872. In regard to the enumeration of the land population, each enumerator left a form of the return in each house in his block on the 24th January, with instructions that it should be filled in by the head of the house and returned to him on the night of the 25th, or the following day, when he would call for it. These instructions were well attended to as far as the intelligent portion of the inhabitants of Howrah was concerned, but as respects the more ignorant classes, the enumerator had to fill in the forms himself. The forms were then gathered and made over by the enumerators to their respective supervisors, who, after scrutinizing the papers carefully, submitted them to the Deputy Magistrate of the Division, and he, after having satisfied himself that they were properly filled up, passed them on to the District Magistrate. As regards the enumeration of the river population, arrangements were made,

in communication with the Calcutta and 24 Parganás authorities, by which boats in motion were counted by them within their respective jurisdictions, those moored on the Howrah side of the river being enumerated by the Howrah authorities; and the head man of each boat so enumerated being furnished with a ticket to avoid a second enumeration elsewhere. In correspondence with the Calcutta authorities, the enumeration of the passengers booked beyond Bardwán in the mail train, and who passed the night on their way, was made by special agency at the Armenian *ghát* in Calcutta, on board the railway ferry steamer, and at the Howrah railway station.

In taking the Census of the town of Howrah, nothing occurred to call for special notice; the operations were carried on without the slightest opposition. The more ignorant class of natives suspected at the outset that the object of Government was to collect statistics for the purpose of imposing some kind of tax, but this suspicion soon died away. The Magistrate was informed that certain Muhammadan priests had intended to oppose the enumeration, but they took the advice of persons more sensible than themselves, and submitted quietly.

The total cost of taking the Census of the town of Howrah and its suburbs amounted to £111, 16s. od., one-half of which was borne by the Municipality, and the other half by Government. The Census disclosed a total of 21,491 inhabited houses, with a total population of 97,784, the average number of inmates to each house being about $4\frac{1}{2}$; with an average density of population of 8849 persons to the square mile, the area of the town and suburbs, as already stated, being about $11\frac{1}{20}$ th square miles. [The Census takes the area roughly at 12 square miles, and therefore shows a slight discrepancy in the pressure of the population per square mile, *ante*, p. 275.] Hindus, males, 42,718; and females, 36,617—total, 79,335. Muhammadans, males, 10,341; and females, 6270—total, 16,611. Christians, males, 783; and females, 701—total, 1484. Other denominations, not separately classified, males, 256; and females, 98—total, 354. Total of all denominations, males, 54,098; and females, 43,686—grand total, 97,784. In a town like Howrah, it is only to be expected that the male population should exceed the female, as a large number of artisans and labourers come to the town from the rural parts, and do not bring their families with them.

Howrah was one of the towns in which Educational Statistics were collected by means of the Census Returns, and the following figures compiled from the Report show satisfactory results :—Of the total Hindu male population, amounting to 42,718 souls, 9987, or 23·38 per cent., are able to read and write, or are under instruction. Of the Muhammadan male population, amounting to 10,341 souls, 816, or 7·89 per cent., are able to read and write, or are under instruction. The Christian male population of all ages amounts to 783; and of these, 572, or 73·05 per cent., are able to read and write, or are under instruction. ‘Others’ number 256 of the male population; and of these only 11, or 4·29 per cent., are able to read and write. Of the total male population of all ages and all denominations, amounting to 54,098 souls, 11,387, or 21·04 per cent., are able to read and write, or are under instruction. Female education is of course in a much more backward state. The Hindu female population of all ages in the town of Howrah amounts to 36,617 souls, of whom only 285, or 0·77 per cent., are able to read and write, or are under instruction. The Muhammadan females of all ages number 6270, of whom 63, or one per cent., are able to read and write, or are under instruction. The Christian females of all ages number 701, of whom 484, or 69·04 per cent., are able to read and write, or are under instruction. ‘Other’ females number 98, of whom 5, or 5·10 per cent., are able to read and write, or are under instruction. Of the total female population of all denominations and of all ages, amounting to 43,686, only 837, or 1·91 per cent., are able to read and write, or are under instruction. Taking the total males and females of all ages, amounting to 97,784, the number able to read and write, or who are under instruction, amounts to 12,224, or 12·50 per cent. of the total population.

HUGLI AND CHINSURAH.—These two towns are bracketed together as one in the Census Report; and taken together they cover an area of about six square miles. Both places are situated on the bank of the Húgli; Chinsurah in 22° 53' 10" north latitude and 88° 26' 15" east longitude; and Húglí in latitude 22° 54' 50" and longitude 88° 26' 20". The population of Húglí and Chinsurah seems to have increased since the taking of the experimental Census of 1869. In that year the towns were enumerated separately, the population of both towns being returned as under :—Males, 10,439; females, 10,510; total, 20,949. The Census of 1872 returned the following details of the population of Húglí and

Chinsurah:—Hindus—males, 13,249; and females, 14,180; total, 27,429. Muhammadans—males, 3672; and females, 3280; total, 6952. Christians—males, 165; and females, 163; total, 328. Other denominations not separately classified—males, 28; and females, 24; total, 52. Total of all denominations—males, 17,114; and females, 17,647; total, 34,761. The difference between the total results arrived at by the experimental Census of 1869 and the regular Census of 1872 arises to some extent from the fact that the areas included were not exactly the same on both occasions.

Húglí town is the administrative headquarters of the District. It is said to have been founded by the Portuguese in 1537, on the decay of Sátgáon, the royal port of Bengal, a decay caused by the silting up of the Saraswatí river, on which it was situated. Upon establishing themselves at Húglí, the Portuguese, under their general Samprayo, built a fortress at a place called Gholghát, close to the present Húglí Jail, the vestiges of which are still visible in the bed of the river. This fort of Gholghát gradually grew into the town and port of Húglí; but the Portuguese made themselves very unpopular with the Mughul Governor of Bengal. On the other side of the bay, in their great Settlement of Chittagong, their bigotry provoked a Musalmán persecution, which ended in their defying the Mughul Government and establishing themselves as an independent piratical power in Eastern Bengal. They blockaded the mouths of the Ganges and Brahmaputra, and invaded Bengal with a host of Arákánese savages. About 1621, Prince Kharram, afterwards the Emperor Sháh Jahán, revolted against his father the Emperor Jahángír. He was defeated, and fled to Bengal, where he solicited the assistance of the Portuguese at Húglí, and asked to be furnished with troops and artillery. The Portuguese Governor refused, and taunted the prince with being a rebel. Sháh Jahán never forgave the refusal and the insult. Eight years afterwards, shortly subsequent to his accession to the imperial throne, a representation was made to him by the Governor of Bengal, that some European idolaters, who had been allowed to establish factories in Húglí, had mounted their fort with cannon, and had grown insolent and oppressive. The Emperor was glad of this pretext to take revenge on the Portuguese for their insult to him eight years before, and gave orders that they should be immediately expelled from his dominions. A large force was accordingly marched against the Portuguese at Húglí, and, after a siege of three and a half months, the fort was

carried by storm. Over a thousand Portuguese were slaughtered, and upwards of four thousand men, women, and children were made prisoners of war. Out of more than three hundred vessels of all sizes, only three made their escape. The prisoners were sent to Agra, and forcibly converted to Islám, the young girls being distributed among the *harems* of the Emperor and his nobility. After this capture of Húglí by the Muhammadans, the seat of the royal port of Bengal was removed thither from Sátgáon. All the public records and offices were transferred to Húglí at the same time, and Sátgáon, from a large and important city, speedily fell into insignificance.

Húglí was also the first Settlement of the English in Lower Bengal. The Orissa establishment at Pippli dates from 1624-36; five years later the Húglí factory was formed. The East India Company established it in 1640-42, under a *Farmán* from Sultán Shujá, then Governor of Bengal, and second son of the Emperor Sháh Jahán. The *Farmán* was granted to Dr. Boughton, a surgeon in the East India Company's service, who had cured a favourite daughter of the Emperor's of a dangerous illness, and who, when asked to name his reward, preferred the interests of his country and employers to his own aggrandisement. In 1669, the East India Company received as a concession the privilege of bringing their ships up to the town of Húglí for the purposes of loading. Hitherto they had been compelled to transport their merchandise to the seaboard in small sloops, and there re-ship them into large vessels. It was at Húglí also that the English first came into collision with the Muhammadan Government in Bengal. In 1685 a dispute took place between the English factors at Húglí, and the Nawáb of Bengal on the part of the Delhi Emperor, and a military force was despatched by the home and Madras authorities to strengthen and protect the Company's factories at Húglí. The quarrel seemed to be on the point of adjustment, and it is said that the Nawáb was about to sign a treaty of peace, when an accident frustrated his intentions. A few English soldiers, walking in the bázár of Húglí, were suddenly attacked by some men belonging to the Nawáb's force. The comrades of the former came to their rescue, and a street fight ensued. The town of Húglí was bombarded by the English commander, Colonel Nicholson. His fire burned 500 houses to the ground, including the warehouses of the Company itself, containing goods to the

value of £300,000. The head factor of the East India Company was compelled to fly from Húglí to Calcutta, or Sutánutí, as it was then called, and take shelter with some native bankers and merchants who had dealings with the Company, and who had established themselves at the little village of Sutánutí a few years before.

The principal building in Húglí is the Imámbará, a Shiah institution for perpetuating the memory of the twelve Imáms, constructed out of funds which had accumulated from an endowment originally left by a wealthy Muhammadan gentleman, Muhammad Mohsin. This edifice forms a good specimen of Muhammadan architecture in Bengal, and is thus described by Bábu Bholánáth Chandra in his *Travels of a Hindu*, vol. i. page 13:—‘The courtyard is spacious and grand. The trough in the middle is a small-sized tank. The two-storied buildings all round are neat and elegant. The great hall has a royal magnificence; it is profusely adorned in the Muhammadan style, with chandeliers and lanterns and wall shades of all colours of the rainbow. The surface of the walls is painted with blue and red inscriptions from the Kurán. Nothing can be more gorgeous than the doors of the gateway; they are richly gilded all over, and upon them is inscribed in golden letters the date and history of the *masjid*.’ Húglí is also memorable as the place where the first printing-press was set up in Bengal, in 1778, with a view to the publication of a Bengali grammar.

CHINSURAH is situated a short distance south of Húglí, but is now included as a portion of the latter town. The Dutch established themselves here in the 17th century, and held the place till 1825, when it was ceded by the Netherlands Government to Great Britain in exchange for the island of Java. The town is neatly laid out. It was used as an invalid depôt for troops and for regiments coming from or departing to England till within the last few years, when it was abandoned as a military station. Húglí and Chinsurah form one municipality. In 1871, according to the Census Report, the gross municipal income amounted to £3255, 10s. od., and the gross municipal expenditure to £3263, 8s. od. Average rate of taxation, 1s. 10½d. per head of the population.

SERAMPUR, the headquarters of the Subdivision of the same name, is situated on the west bank of the Húglí, opposite the station of Barrackpur, in 22° 45' 30" north latitude and 88° 23' 30"

east longitude. According to the experimental Census of 1869, the population of Serampur municipality amounted to 10,232 males, and 11,024 females; total, 21,607. The systematic Census of 1872 disclosed a population of 24,440, as follows:—Hindus—males, 11,024; and females, 10,807; total, 21,831. Muhammadans—males, 1082; and females, 924; total, 2006. Christians—males, 306; and females, 266; total, 572. Other denominations not separately classified—males, 26; and females, 5; total, 31. Total of all denominations—males, 12,438; and females, 12,002; total, 24,440. The municipality of Serampur includes, besides the subdivisional town, several neighbouring villages. In 1871, the gross municipal income was returned at £3687, 4s. od., and the gross municipal expenditure at £3503, 12s. od. Average rate of taxation, 3s. per head of the population.

In 1870, the town is stated to have contained 796 masonry houses, and 2089 native huts, besides 14 brick-built *gháts* or landing-places along the river bank, and 64 fresh-water tanks scattered throughout the town. Forty-one metalled and 36 unmetalled roads and streets run through the Station. Bábu Bholánáth Chandra gives the following description of Serampur, in vol. i. of his *Travels of a Hindu*, page 6:—‘Serampur is a snug little town, and possesses an exceeding elegance and neatness of appearance. The range of houses along the river side makes up a gay and brilliant picture. The interior keeps the promise which a distant view has given. The streets are as brightly clean as the walks in a garden. There is not much bustle or activity; the whole place wearing the character of a suburban retreat. But time was when Serampur had a busy trade, and “twenty-two ships cleared from this small port in the space of three months.”’ Serampur was formerly a Danish Settlement, and remained so until 1845, when, by a treaty with the King of Denmark, all the Danish possessions in India, consisting of the town of Tranquebar, the town of Frederiksnagar, or Serampur, and a small piece of ground at Balasor, formerly occupied as a factory, were transferred to the East India Company, in consideration of the sum of twelve and a half *lákhs* of rupees (£125,000). Serampur is a station on the East Indian Railway, thirteen miles distant from Calcutta, and a favourite resort of people whose business lies in the city. But its chief claim to historical notice arises from its having been the scene of the apostolic labours of Carey, Marshman, and Ward. The

zeal and successes of the Baptist missionaries of Serampur, at the beginning of this century, form the brightest episode in evangelistic efforts in India. They selected the Danish Settlement of Serampur for the field of their exertions, as the English East India Company forbade their residence in British territory. The mission still flourishes, and a church, school, college, and noble library attest the enlightened Christianity of its founders. The *Friend of India*, a paper published at Serampur, has rendered the town conspicuous in the history of Indian journalism.

BAIDYABATI, a town and railway station of the East Indian Railway situated on the banks of the Húglí, in $22^{\circ} 47' 25''$ north latitude and $88^{\circ} 22' 20''$ east longitude. The town is an important seat of native trade; and a bi-weekly market, reported as one of the largest in Bengal, is held every Tuesday and Saturday, when important transactions take place in various kinds of produce, especially in jute, which is brought to this market from all the adjacent country. The Census Report thus returns the population of the town:—Hindus—males, 5792; and females, 6414; total, 12,206. Muhammadans—males, 562; and females, 564; total, 1126. Christians and 'others,' *nil*. Grand total—males, 6354; and females, 6978; total, 13,332. The town has been created into a municipality. In 1871, the gross municipal income is returned at £552, 4s. od., and the gross municipal expenditure at £583, 12s. od. Average rate of taxation, 9½d. per head.

BANSBARIA, situated on the banks of the Húglí south of Tribení, in $22^{\circ} 57' 40''$ north latitude and $88^{\circ} 26' 35''$ east longitude. The District Census Report thus returns its population:—Hindus—males, 3250; and females, 3957; total, 7207. Muhammadans—males, 302; and females, 332; total, 634. Christians—males, 6; and females, 8; total, 14. 'Others'—males, 3; and females, 3; total, 6. Total of all denominations—males, 3561; and females, 4300; total, 7861. The town has been incorporated into a municipality. In 1871, the gross municipal income was returned at £215, 10s. od., and the gross municipal expenditure at £218, 6s. od. Average rate of taxation, 6½d. per head of the population.

The following particulars regarding the town of Bânsbâriá are quoted from an article contributed to the *Calcutta Review* some years ago by the Rev. J. Long:—'The village of Bânsbâriá or Bânsbâti, *i.e.* the place of bamboos, is famous for the temple dedicated to the goddess Hanseswarí, with its thirteen pinnacles and

thirteen images of Siva, erected fifty years ago by Rání Sankarí Dási, the wife of Rájá Nrisinha Deb Rái, a *Zamindár*. It cost a *lák* of rupees (£10,000), and had a house or fort, mounted with four pieces of cannon, and surrounded by a trench; when the Marhattás came near Tribení, the people fled hither for protection. On the occasion of the festival of the goddess to whom the temple is dedicated, the Rání used to invite pandits from all the neighbouring country. The temple occupies an area of fifteen acres. At Bánsbáriá there were formerly twelve or fourteen *tols*, or Sanskrit schools, where *nyáya* or logic was read; but Sanskrit studies are now on the decline. The *Tatwabodhini Sabhá* formerly had a flourishing English school, containing two hundred pupils, at Bánsbáriá, which was established in 1843; but some of the boys embracing Vedántism, their parents became alarmed lest they should forsake Puránism, and withdrew many of them. The members of the *Sabhá* thought that Bánsbáriá, being an eminent seat of Hindu learning, presented a more favourable opening for a school than Calcutta, but Puránism and Vedántism being antagonistic, the success of the school was retarded. The first native Christian church, under a native minister, in this part of the country, was formed at Bánsbáriá under Táráchánd, an educated native Christian, who spoke English, French, and Portuguese with fluency.'

BHADRESWAR, a small town and municipality, situated in latitude $22^{\circ} 49' 50''$ and longitude $88^{\circ} 23' 30''$. The town contains a large *bázár*, and is the seat of a considerable trade, which has increased in proportion to the decline of that of Chandarnagar. The District Census Report thus returns its population:—Hindus—males, 3351; and females, 3778; total, 7129. Muhammadans—males, 167; and females, 121; total, 288. Christians and 'others,' *nil*. Grand total—males, 3518; and females, 3899; total, 7417. Gross municipal income in 1871, £337, 16s. od.; gross municipal expenditure, £521, 4s. od.; rate of municipal taxation, 10½d. per head of the population.

KOTRANG, a large village on the bank of the Húglí, situated in latitude $22^{\circ} 41' 20''$ and longitude $88^{\circ} 24' 0''$. The village is principally noted for its brick manufactories, and for a large workshop belonging to the Calcutta municipality. The District Census Statement returns its population as under:—Hindus—males, 3099; and females, 2473; total, 5572. Muhammadans—males, 629; and females, 608; total, 1237. Christians—male, 1; and female, 1; total,

2. Grand total—males, 3729; and females, 3082; total, 6811. Kotrang has been incorporated into a municipality. The gross municipal income in 1871 is returned at £205, 10s. od.; gross municipal expenditure, £171, 12s. od.; rate of municipal taxation, 7¼d. per head of the population.

SMALLER TOWNS AND PLACES OF IMPORTANCE.—The foregoing are the towns in the District containing a population of five thousand souls and upwards, and separately exhibited in the Census Report. There are, however, several other towns and villages, which, although containing a smaller population, and not shown separately in the Census Report, are important as seats of trade or as places of historical interest, and may seem to deserve notice. The following is a list of the principal of these villages and small towns, arranged according to their geographical position, commencing in the south and going north:—

ULUBARIA, a small town on the banks of the Húglí, about fifteen miles south of Howrah, situated in latitude 22° 28' 0" and longitude 88° 9' 15". The town contains a Subordinate Judge's Court, a police station, and post office. The main road from Calcutta to the temple of Jagannáth at Puri in Orissa crosses the Húglí at Ulubáriá, which is also the starting-point of the Midnapur High Level Canal. Considerable boat traffic takes place between Calcutta and Ulubáriá, and a small native ferry steamer also plies daily between the two places.

AMPTA, a village on the banks of the Dámodar river, situated in latitude 22° 34' 30" and longitude 88° 3' 12", and chiefly inhabited by boatmen. The population of the village being under five thousand, it is not separately exhibited in the Census Report of 1872. According to the experimental Census of 1869, the population of the village then consisted of 1599 males and 1861 females; total, 3460.

MOHIARI, a large village on the bank of the Húglí. The *Zamindár* of this place is a very wealthy man, and bears the title of Rájá among his tenants. A number of the lapsed Bráhmans, known as Pír Alí Bráhmans, reside in this village. This section of Bráhmans were degraded for a curious reason. It is stated that a Muhammadan, named Pír Alí, compelled a Bráhman to smell his food, for which the unfortunate Bráhman lost his caste; his descendants are known as Pír Alí Bráhmans. The population of the village being under five thousand, it is not shown separately in

the Census Report of 1872. The experimental Census of 1869, however, gives the following details of its population, etc. :—Area, 726 acres ; 731 houses ; population, 1455 males, and 1472 females ; total, 2927—average number of inmates per house, 4·00 ; average number of souls per acre, 4·03 ; percentage of males in total population, 49·71.

BALI, a large village situated on the bank of the Húglí about five miles north of Howrah town. It is the first station on the East Indian Railway after leaving Howrah, and is also noted as being an academy for Hindu pandits. A strong and substantial suspension bridge is constructed over the creek to which the village has given its name. The Report of the experimental Census of Bengal returns the population, etc., of the village as follows :—Area, 2294 acres ; 562 houses ; population, 1725 males, and 1819 females ; total, 3544—average number of inmates per house, 6·3 ; average number of persons per acre, 1·54 ; proportion of males in total population, 48·67 per cent.

UTTARPARA, a large and thriving village immediately north of Báli, situated on the bank of the Húglí. The experimental Census Report returned the population, etc., of the village as follows in 1869 :—Area, 324 acres ; population, 1339 males and 1709 females ; total, 3048—average number of persons per acre, 9·41 ; proportion of males in total population, 43·93. At the time of the Census of 1872, the population was ascertained to have increased to 4389. Uttarpára is the family residence of the powerful and enlightened *Zamíndár* Joykissen Mukharjí. The village has also a small but well-conducted municipality, the income of which in 1873 amounted to £439, and the expenditure to £508.

KONNAGAR, the next station on the East Indian Railway above Báli. The village is inhabited by a considerable Bráhma community, but is not otherwise of particular importance. The population was not enumerated at the time of the experimental Census, and as the village contains less than five thousand inhabitants, it is not separately shown in the general Census Report.

MAHESH AND BALLABHPUR, suburbs of Serampur. The car festival of Jagannáth is celebrated here with great pomp, and attended by a large concourse of people.

CHAMPDANI, a small village on the bank of the Húglí near Baidyabátí. In former times it is said to have been notorious for piracies and murders.

SINGUR, a market village on the road from Baidyabáti to the shrine of Tárakeswar. The Singur *Zamíndárs* were once rich and powerful landholders, but the family has now fallen into poverty. Potatoes, sugar-cane, and melons are largely cultivated around the village.

TARAKESWAR, a village containing a large shrine dedicated to Siva, where crowds of people assemble at all times of the year, but especially during the months of March and April. The temple is richly endowed with money and lands, which are supplemented by gifts and offerings from the pilgrims who visit the shrine. The temple is under the management of a priest or monk called a *Mahant*, who enjoys the revenues of the temple for life. The principal religious festivals and fairs held at this shrine will be alluded to on a subsequent page.

CHANDARNAGAR (popularly CHUNDERNAGORE, correctly CHANDAN-NAGAR, or 'City of Sandal Wood'), situated on the bank of the Húglí a short distance below Chinsurah, in latitude $22^{\circ} 51' 40''$ and longitude $88^{\circ} 24' 50''$. The town is French territory, and a description of it hardly belongs to an account of a British District; but as it has borne an important part in the early history of Bengal, a brief mention of it may not be out of place here. The place became a French Settlement in 1673, but did not rise to any importance till the time of Dupleix, during whose administration more than two thousand brick houses were erected in the town, and a considerable maritime trade was carried on. In 1757, the town was bombarded by the English fleet under Admiral Watson, and captured; the fortifications and houses were afterwards demolished. On peace being established, the town was restored to the French in 1763. When hostilities afterwards broke out in 1794, it was again taken possession of by the English, and held by them till 1816, when it was a second time given up to the French, and has ever since remained in their possession. All the former grandeur of Chandarnagar has now passed away, and at present it is little more than a quiet suburban town, without any external trade.

BANDEL, a small village situated on the bank of the river about a mile above the town of Húglí, contains a Roman Catholic monastery, said to be the oldest Christian church in Bengal. Over the gateway is a stone bearing the date 1599.

SATGAON is situated to the north-west of the town of Húglí, in latitude $22^{\circ} 58' 20''$ and longitude $88^{\circ} 25' 10''$. Sátgáon or Saptagrám (the city of seven sages) was the traditional mercantile capital

of Bengal from the Puránic age to the time of the foundation of the town of Húglí by the Portuguese. The Portuguese and other European nations very early traded at Sátgáon. The ancient family of the Seths, the great native bankers of the last century, who settled in Calcutta on its first establishment, still own lands in this locality. The decay of Sátgáon as a wealthy mercantile city and port commenced in the latter part of the sixteenth century, owing to the silting up of the channel of the Saraswatí. The great stream of the Ganges, which formerly flowed southwards from Sátgáon by way of the Saraswatí, gradually deserted this channel, and diverted its waters into the Húglí, then a comparatively small river. Nothing now remains to indicate the former grandeur of the town except a ruined mosque; the present village consists of a few miserable huts. Professor H. Blochmann thus describes this mosque in vol. xxxix. of the *Journal of the Asiatic Society of Bengal*, part i. for 1870, pp. 280-281:—‘This mosque, which, together with a few tombs near it, is the only remnant of the old capital of Lower Bengal, was built by Sayyid Jamál-ud-dín, son of Sayyid Fakhr-ud-dín, who, according to inscriptions on the mosque, had come from Amul, a town on the Caspian Sea. The walls of the mosque are built of small bricks, and are handsomely adorned, inside and outside, with arabesques. The central *mihrab*, or niche, looks very fine; but the upper part of the west wall having fallen down, half the mosque is filled with stones and rubbish, so that it is impossible to see the whole of the niche. The arches and domes are in the later Pathán style. Over each entrance inside there is a crescent. Near the south-east angle of the mosque is an enclosure with three tombs, where Sayyid Fakhr-ud-dín, his wife, and his eunuch are said to be buried. The wall forming the enclosure is in many places broken down. I found two long basalt tablets placed slantingly against the inner side of the north wall. A third square basalt tablet is fixed into the wall; unfortunately it is broken in the middle, and the wall is half pierced to allow the customary lamp to be put into the cavity. These three inscriptions should be removed to a museum. It is impossible to say how they came into the enclosure. When the public buildings in Sátgáon and Tribení decayed, pious hands probably rescued the inscriptions and stored them up in holy places, such as Fakhr-ud-dín’s enclosure, and Zafar Khán’s mosque and tomb, or even fixed them into the walls at the time of repairs, thus converting each of these *astánahs* or

tombs into a sort of museum. There is also an inscription on Fakhr-ud-din's tomb, but it is illegible, although it could perhaps be deciphered if the letters were carefully painted.

'A short distance higher up the Grand Trunk Road lie eleven huts, which form the modern Sâtgaon. The ground between them and the Saraswatî, towards a small village of the name of Lâl Jhápah which lies to the west of it, is very uneven, and looks as if it had been the site of an extensive Settlement. At one place, not far from the road, the capital of a large pillar emerges from the ground.'

The ancient glories of Sâtgaon are thus alluded to by the Rev. J. Long in an article, 'The Banks of the Bhágirathî,' which appeared in the *Calcutta Review* many years ago:—"Sâtgaon, the royal emporium of Bengal from the time of Pliny down to the arrival of the Portuguese in this country, has now scarcely a memorial of its ancient greatness left. Wilford thus describes it:—"Ganges Regia, now Sâtgaon, near Húglí. It is a famous place of worship, and was formerly the residence of the kings of the country, and said to have been a city of an immense size, so as to have swallowed one hundred villages. Its name means the seven villages, because there were so many consecrated to seven *rishis* or sages, each of whom had one appropriated to his own use." Sâtgaon is said to have been one of the resting-places of Bhágirathî. One of the Puránas states that Pryabasta, King of Kanauj, had seven sons who were *rishis*, and who lived in Sâtgaon, and whose names were given to seven villages, viz., Agnidra, Romanaka, Bhopisanta, Saurabanan, Bara, Sabana, and Dutimanta. *Kusa* grass is said not to grow in Sâtgaon, as it was cursed by the seven *rishis*. De Barros writes that "Sâtgaon is a great and noble city, though less frequented than Chittagong, on account of the port not being so convenient for the entrance and departure of ships." Purchas states it to be "a fair citie for a citie of the Moores, and very plentiful, but sometimes subject to Patnaw." Fredericke, who travelled in Bengal in 1570, and visited Sâtgaon, mentions that in it "the merchants gather themselves together for their trade." He describes a place called Buttor, "a good tide's rowing before you come to Sâtgaon; from hence upwards the ships do not go, because the river is very shallow and little water; the small ships go to Sâtgaon, and there they lade." He adds that "Buttor has an infinite number of ships and bázárs; while the ships stay in the season, they erect a village of straw houses, which they burn when the ships leave, and build again the next season. In

the port of Sâtgação, every year they lade thirty or thirty-five ships, great and small, with rice, cloth of bombast of divers sort, lac, great abundance of sugar, paper, oil of zezeline, and other sorts of merchandise." The Sháh Jahán Námah, part of which is translated in Stewart's *Oriental Catalogue*, mentions that "while Bengal was governed by its own princes, a number of merchants resorted to Húglí, and obtained a piece of ground and permission to build houses, in order to carry on their commerce to advantage; in the course of time, owing to the stupidity and want of attention of the Governors of Bengal, a great number of Portuguese assembled here, who erected lofty and solid factories, which they fortified with cannon, muskets, and other implements of war." He then states that the Portuguese settled at Húglí, "which drew in a short time all the trade from Sâtgação, which in consequence fell into decay." In 1632, Húglí being made a royal port, all the public officers were withdrawn from Sâtgação, which soon sunk into ruin. The Mughul Governor of Húglí brought a charge against the Portuguese before Sháh Jahán, of "having drawn away the trade from the ancient port of Sâtgação." The silting up of the river was another and the greatest cause of its decay; it is said that the Mughuls deepened the present channel which flows in front of Húglí, and this would serve to draw off the current which before flowed down by Sâtgação. Warwick, a Dutch admiral, notices that Sâtgação in 1667 was a place of great trade for the Portuguese. The foundations of a fort built by the Musalmáns are still visible near Sâtgação bridge; the fort was pulled down to build houses in the town.'

TRIBENI is situated on the bank of the Húglí at the point where the Saraswatí *khál* branches off from it, in latitude $22^{\circ} 59' 10''$ and longitude $88^{\circ} 26' 40''$. To the north of the mouth of the Saraswatí is the broad and high Tribení *ghát*, a magnificent flight of steps, said to have been built by Mukund Deo, the last sovereign of the Gajapati dynasty of Orissa, who reigned in the middle of the sixteenth century, at which time the kingdom of Orissa extended as high up as Bardwán. To the south of the Saraswatí, on the high river bank, lies the village of Tribení itself. The name of Tribení, or the three streams, is given to the place from the junction of the Ganges or Húglí, the Saraswatí, and the Jamuná. The Jamuná flows into the Húglí on its left bank, opposite the southern extremity of an extensive island in the middle of the river facing Tribení. Tribení is considered a place of great sanctity,

and several fairs and religious gatherings are held at the times of the Hindu festivals, attended by large concourses of people. A brief mention of the principal of these religious fairs will be given on a subsequent page. The Rev. Mr. Long, in the article in the *Calcutta Review* above quoted, speaks of the place in the following terms:—‘Tribeni was one of the four *samdj* or places famous for Hindu learning; the others are Nadiyá, Sántipur, and Guptipará. Tribeni was formerly noted for its trade. Pliny mentions that the ships assembling near the Godávarí sailed from thence to Cape Palínurus, thence to Tentigalé opposite Faltá, thence to Tribeni, and lastly to Patná. Ptolemy also notices Tribeni. Formerly there were over thirty *tols* or Sanskrit schools in the town. The famous *pandit*, Jagannáth Tarkopanchánan, the Sanskrit tutor of Sir William Jones, was a native of this village, and in the time of Lord Cornwallis he took an active part in the publication of the Hindu laws.’

South of the village stands a famous mosque, containing the tomb of Zafar Khán; it was once a Hindu temple. This Zafar Khán was the uncle of Sháh Safí; he was a zealous Musalmán, and was ultimately killed in a battle fought with Rájá Bhudea. Zafar’s son conquered the Rájá of Húglí and married his daughter, who is buried within the precincts of the temple, and at this day Hindu offerings are openly made at her tomb on Musalmán festivals. Zafar Khán, although a Muhammadan, is said to have worshipped the Ganges.

Professor Blochmann thus describes Zafar Khán’s mosque and tomb (*Journal of the Asiatic Society of Bengal*, vol. xxxix. part i. for 1870, p. 282):—‘The *astánah* consists of two enclosures. The first, which lies near the road leading along the bank of the Húglí, is built of large basalt stones, said to have been taken from an old Hindu temple, which Zafar Khán destroyed. Its east wall, which faces the river, shows clear traces of mutilated Hindu idols and dragons; and fixed into it, at a height of about six feet from the ground, is a piece of iron, said to be the handle of Zafar Khán’s battle-axe. The second enclosure, which is joined to the west wall of the first, is built of sandstone. The *khadím*, or keeper of the *astánah*, a man not altogether illiterate, told me that the western tomb was that of Zafar Khán. The other three, he said, are those of Ain Khán Ghází and Ghain Khán Ghází, sons of Zafar Khán, and of the wife of Bar Khán Ghází. The first enclosure

contains the tomb of Bar Khán Ghází, third son of Zafar Khán, and of Rahim Khán Ghází, and Karím Khán Ghází, sons of Bar Khán.

‘About twenty yards to the west of the second enclosure are the ruins of a mosque, likewise built with the materials of an old Hindu temple. The low basalt pillars supporting the arches are unusually thick, and the domes are built of successive rings of masonry, the diameter of each layer being somewhat less than that of the layer below, the whole being capped by a circular stone, covering the small remaining aperture. Two of the domes are broken; on the western wall there are several inscriptions. According to the Arabic verses written about the principal *mihráb*, the mosque was built by Khán Muhammadan Zafar Khán, who is called a Turk, in A.H. 698, or A.D. 1298. The ground round about the mosque is very uneven; several basalt pillars lie about; and there are foundations of several structures, as also a few tombs, which are said to be the resting-places of former *khadíms*.’

MAGRAH, a village and station of the East India Railway, situated a few miles west of Tribení, in latitude $22^{\circ} 59' 5''$ and longitude $88^{\circ} 25' 0''$. The village contains a good-sized *bázár*, and is the seat of a considerable local trade.

PANDUAH, a village and railway station, situated in latitude $23^{\circ} 4' 35''$ and longitude $88^{\circ} 19' 25''$. A good deal of confusion has arisen between the ancient notices of this village and another town of the same name (Panduah) in Maldah District. Both were places of great antiquity, but the Maldah Panduah was the more important, and for a short time claimed the dignity of the capital of Bengal. Gaur, in the same District of Maldah, was the more permanent provincial capital. I condense the following description of the Panduah in Húglí District from Bábu Bholánáth Chandra's *Travels of a Hindu*, vol. i. pp. 141-145. In ancient times Panduah was the seat of a Hindu Rájá, and fortified by a wall and trench five miles in circumference. It is now only a small rural village, peeping out from amidst groves, orchards, and gardens, which surround it on all sides, and impart to it a pleasing sylvan appearance. Traces of its ancient fortifications are yet discernible at places: the tower, 120 feet high, arrests the eye from a long way off. This is said to be the oldest building in Lower Bengal, and it has defied the storms and rains of a tropical climate through five centuries. It has seen the rise and fall of Dacca, Rájmahal, and Murshidábád, the successive capitals of the Muhammadan era.

Panduah is famous as the site of a great victory, gained by the Muhammadans under Sháh Safí, over the Hindus, in 1340 A.D. The story goes that the Hindu Rájá of Panduah, on the occasion of the birth of an heir to his house, had given a great festival. One of his officers, a Musalmán, who held the post of translator of Persian documents, also made a feast of his own at the same time, at which he killed a cow, taking care to bury the bones in an obscure part of the town, in order to avoid giving offence to the Hindu population. But the bones were dug up by jackals at night ; and the next morning, on discovering the sacrilege, the whole town rose *en masse* and demanded vengeance on the offender. The unfortunate child of the Rájá, being deemed unworthy to live with the blood of kine upon his head, was first killed. The people then turned upon the Musalmán, who appealed to the Rájá for protection, and not receiving it, made his escape to Dehli, when the Emperor despatched a large army against the Panduah Rájá, and a war resulted, which raged for many years, and finally terminated in the complete overthrow of the Hindus. This is the legend as told by Bábu Bholánáth Chandra. The Rev. Mr. Long, in an article which appeared in the *Calcutta Review* some years ago, regarding the localities of the Grand Trunk Road, tells the same story, but with the difference that the Musalmán officer of the Rájá was celebrating the birth of his own child, the latter being slain by the Hindus as a retaliation upon the father for having slaughtered a cow ; and that it was to obtain revenge for the murder of his child that the father sought assistance from the Emperor at Dehli. This version of the story seems the more probable.

A local tradition of the war between the Muhammadans and the Panduah Rájá relates that for a long time the Musalmáns strove against the place in vain, as the town contained a sacred tank, the waters of which possessed the virtue of restoring life to the fallen soldiers of the Hindu garrison. The Muhammadan general, however, succeeded in destroying the all-healing powers of the tank, by throwing a piece of cow's flesh into it, and thereby defiling the water. The besieged Hindus could no more make use of their tank, and were forced to surrender.

The tower of Panduah was constructed to commemorate the victory of the Muhammadans. An iron rod, which runs to the top of the tower, is alleged to have been the walking-stick of Sháh Safí, the general of the Musalmán forces. His tomb is situated close by,

and is regarded as a spot of great veneration by the Muhammadans of Lower Bengal. Sháh Saff's mosque is a fine building, two hundred feet long, and with sixty domes. To the west of the village is a large tank called the *pir-pukur*, forty feet deep, and five hundred years old; it is surrounded by ruined mosques and tombs, which are said to be those of Musalmáns who fell at the siege of Panduah. Panduah has suffered much from the epidemic fever at present raging in Húglí District, and its population is thought to have decreased of late years. According to the Census, the village contained a population of 3690 souls in 1872.

BAINCHI, a considerable village on the Grand Trunk Road, situated near the borders of Bardwán District, in latitude $23^{\circ} 7' 0''$ and longitude $88^{\circ} 15' 35''$. It is also a station on the East Indian Railway. The town suffered severely from the fever epidemic, and has considerably decreased in population. In 1813, a Census of the population of Bainchí showed a population of 5840; in 1872, according to the Census Report, it only contained 4538 inhabitants. In former days Bainchí was notorious for its bands of *dákkáits*, or gang robbers.

NAYA SARAI is situated on the bank of the Húglí, at the mouth of a branch of the Dámodar river called the Káná *nadí* or Kuntí *nadí*, in latitude $23^{\circ} 1' 14''$ and longitude $88^{\circ} 27' 50''$. The banks of the river between Nayá Sarái and Serampur are mostly elevated. Population not separately returned in either the experimental Census of 1869 or the regular Census of 1872.

DUMURDAH, situated on the bank of the Húglí just above Nayá Sarái, in latitude $23^{\circ} 2' 13''$ and longitude $88^{\circ} 28' 50''$. In former years this village was noted for its gangs of robbers and river *dákkáits*. Even so recently as 1845, it was said that 'people fear to pass by this place after sunset, and no boats are ever moored at its *ghát* even in broad daylight.' Bábu Bholánáth Chandra states:—'The notorious robber chief, known by the name of Biswanáth Bábu, lived here. It was his practice to afford shelter to all wayworn and benighted travellers, and to treat them with every show of courtesy and hospitality, and afterwards to murder them in their sleep, and throw them into the river. His depredations extended as far as Jessor, and his whereabouts being never certainly known, he long eluded the search of the police. He was at length betrayed by one of his comrades, and hanged on the spot where he was captured, in order to strike terror into the neighbourhood.' The population of the

village is not separately returned in either the experimental Census of 1869 or the regular Census of 1872.

GUPTIPARA is situated on the bank of the Húglí in the extreme north-east of the District, in latitude $23^{\circ} 11' 45''$ and longitude $88^{\circ} 28' 30''$. It is noted as a seat of Hindu learning, and has produced some celebrated Sanskrit scholars. Population not separately returned either in the experimental Census of 1869 or in the regular Census of 1872.

Before passing finally from the subject, it may be as well to exhibit at a glance the total town population, and the proportion which the inhabitants of the towns bear to the general population of the District. The Census Report returns seven towns in Húglí and Howrah District as containing a population exceeding five thousand souls. The total urban population thus disclosed amounts to 192,406, leaving a balance of 1,296,150 as forming the rural population. The dwellers in the towns, therefore, amount to 12.92 per cent. of the total population. The Hindus furnish 83.52 per cent. of the town population; and the Hindus residing in towns form 13.54 per cent. of the total Hindu population. The Muhammadans, although they form 20 per cent. of the total population, do not furnish so large a proportion among the town population. The Musalmáns form 15 per cent. of the total urban population, the proportion of Muhammadans residing in the towns to the total Musalmán population being only 9.64 per cent. The Christian population, as may naturally be supposed, are nearly all dwellers in the towns, no less than 92.91 per cent. of the total Christian population being town residents. The proportion of Christians in the total town population is 1.24 per cent. Of the 'other' denominations not separately classified, the dwellers in the towns form 86.35 of the total of the same class for the whole District; the proportion of 'others' in the towns being .23 per cent. of the town population.

The following table, condensed from the District Census Statement, presents an abstract of the seven towns in Húglí and Howrah with a population exceeding five thousand souls:—

POPULATION OF TOWNS WITH UPWARDS OF 5000 INHABITANTS IN THE DISTRICT OF
HUGLI WITH HOWRAH.

NAMES OF TOWNS.	Hindus.	Muhamm- dans.	Christians.	Others.	Total.	Gross Municipal Income.		Gross Municipal Expenditure.		Rate of Taxation per Head.
						₹	s. d.	₹	s. d.	
Howrah,	79,335	16,611	1484	354	97,784	20,654	16 0	16,305	18 0	s. d. 4 2½
Húgli and Chinsurah,	27,429	6,952	328	52	34,761	3,255	10 0	3,263	8 0	1 10½
Serampur,	21,831	2,006	572	31	24,440	3,687	4 0	3,503	12 0	3 0
Baldyabáti,	12,206	1,126	...	...	13,332	552	4 0	583	12 0	9½
Bánsbariá,	7,207	634	14	6	7,861	215	10 0	218	6 0	6½
Bhadreswar,	7,129	288	...	...	7,417	337	16 0	521	4 0	10½
Kotrang,	5,572	1,237	2	...	6,811	205	10 0	171	12 0	7½
Total,	160,709	28,854	2400	443	192,406	28,908	10 0	24,567	12 0	Av. 3 0

VILLAGE OFFICIALS AND INSTITUTIONS.—The following paragraphs regarding the old indigenous village officials and institutions still existing in the District, are compiled partly from reports by the District Officers of Húglí and Howrah, upon the village and rural indigenous agency employed in taking the Census, and partly from a subsequent report by the Collector of Húglí, dated 12th June 1873.

THE GUMASHTA is a village official who collects the rents on the part of the *samíndár* or *tálukdár*, and, as the landlord's representative, is the principal authority in the village. He receives from Rs. 3 to Rs. 6 a month as pay, besides certain perquisites called *tahurí* paid by each cultivator at the time of the payment of his rent. The *gumáshtá* presides at the village councils, and in many places receives and decides complaints on divers social and other matters. The office of *gumáshtá* is stated to have been created by the landholders in place of the *patwáris* or village accountants of the old Regulations. Besides the officer who collects the rents, in some villages there is also a *faujdárá gumáshtá*, for the conduct of civil and criminal cases. The Collector of Húglí gives the following account of such an officer :—‘A *faujdárá gumáshtá* receives from Rs. 1½ to Rs. 3 as monthly pay, yet he spends more than Rs. 50 per mensem. The difference is made up chiefly by dishonest and oppressive means. His duty is to attend courts and to file papers there, to watch the progress of cases, and to aid the *mukhtárs* and pleaders with his local knowledge. He takes part in police matters, and is expected to go on rounds with the *pháridár* and *chaukidár* (described below). He seizes cattle and releases them, and arrests suspicious characters. In extortion and hushing up of cases he is a serious rival of the *mandals*, and when both are equally strong, the spoil is divided.’

THE MANDAL OR MUKHYA is next in rank and authority to the *gumáshtá*. He is the head *rayat* of the village, and has great influence with his co-villagers, which he often uses for his own ends and benefit. The office of *mandal* is a very ancient one. The Collector of Húglí gives the following account of these village officials :—‘The office of *mandal* is generally hereditary, but on failure of heirs, the *samíndár*, with the approval of the villagers, may appoint a successor. In a village containing two or more *mandals*, a separate jurisdiction is assigned to each, and within this each reigns supreme. The *mandals* have gradually become less numerous, and the post has of late years not been so much coveted as of old. In this

District *mandals* are now chosen from the Sadgops, Tells, or Godlās. Their duties are mainly connected with the law, and at one time they appear to have held posts somewhat like honorary magistrates. The improvement which has lately taken place in the police has gone far towards undermining their power and depriving them of their privileges. At one time no process could be served without the assistance of the *mandal*, no complaint could be lodged before the regular police till the party had first been to the *mandal*. If the case was a heavy one, all the *mandals* of the village were invited to attend. A meeting was convened, and the case was formally tried. The *mandal* is even now considered to be the *chaukidār's* or village watchman's immediate superior, and is held by him in great awe. The *mandal* of the present day is treated by the *samindār* with much of the respect which he received in times gone by. At the close of the financial year, when the tenants assemble at the *samindāri* court to give each his offering, and are treated in turn to a refreshment of sweetmeats, the *mandal* is first served, and gets the present of a cloth as a mark of respect. The *mandal* still exercises considerable influence in police matters. He is looked to for assistance in all investigations, and it is usually at his house that the police officer puts up. Should one of the *mandals* commit an offence against society, he may be dismissed by the *samindār*, but not without having first obtained the consent of the other *mandals* and the villagers. Should the *samindār* act simply on his own authority, the order would be disregarded, and the offender would still continue to be of the body. The *mandals*, as above described, are only to be found in a few villages. In others they are met with, but minus some of their powers. In some villages there are seven or eight *mandals*, but the average is three. They are rapidly losing their influence, and are being supplanted by the *gumāshtā* and *pradhān*. The causes of the decline of this as well as all other old village institutions are, *first*, the systematic neglect of such agencies by the Government; *second*, the growing power of the *samindārs*; and *third*, the decreasing need of such agencies, occasioned by the introduction of a regular police, a strong government, and the multiplication of administrative Subdivisions.'

In the Howrah portion of the District, the Magistrate reports that the *mandals* are elected or nominated by the local officers attached to the *samindār's* estate, the villagers having no voice in the appointment. The office is hereditary, and the selec-

tions are made generally from Kaibarttas, Bágdís, Chandáls, and Muhammadans. The object with which they were originally appointed was to facilitate the collection of rent, and to exercise a kind of control over the proceedings of the lower classes of husbandmen. They are also entrusted with the duties of reporting the occurrence of crimes in the village, of encroachments on land, of illegal occupation, of lands held rent-free by the villagers, and of everything which concerns the interest of the landlord. The *mandals* are expected to aid and co-operate with the police in the investigation of cases, in the search of houses, etc. There are seldom more than six *mandals* in a Howrah village; and they are entirely at the bidding of the *gumáshtás*. In this part of the District, their appointments are subject to the approval of the *zamindár*, and they are liable to dismissal whenever they come into collision with the *zamindár's* interests. At the *punyá*, or first rent-day of the year, the *mandals* are the first to pay their rent, and on such occasions receive a piece of cloth or present from the *zamindárs* as a mark of respect. They also receive small sums as presents from the *rayats* on occasion of a festival, a marriage, or a *pújá*. They assist the *zamindárs* in levying contributions or cesses from their tenants, from the payment of which they themselves are generally exempted. They also used to settle petty village disputes. The position and influence of the *mandals* in Howrah have of late years diminished, owing to the advent of new ideas and the easier access to justice.

THE PRADHANS in some Districts and in the Howrah Magistracy are the same as *mandals*, but in Húglí proper their status and duties are different, and the Collector gives the following account of them:—‘The *pradháns* or *bhadras* are not recognised village officers, but men who, having acquired wealth by industry and ability, make their importance felt in the community amongst whom their lot is cast. This class is now fast usurping the *mandal's* place, and undermining his authority. In the minds of the people the *mandal* may still hold a superior place; but as the *pradhán* gains strength by means of his ability and money, both of which are real, the *mandal* will lose his influence, owing to his comparative poverty, and his traditional power, which even now is chiefly imaginary. The *mandal* has, however, this advantage over the *pradhán*, that his position is fixed, while that of the *pradhán* is dependent on his wealth and character. As regards both classes, the *mandals* and the *pradháns*, the *mandal's* influence is sometimes advan-

tageously employed in settling disputes and organizing opposition to an oppressive *zamindár*; but the *pradháns*, being retired tradesmen and village usurers, form the very worst class to which authority could be entrusted.'

POLICE OFFICIALS—THE PHARIDAR AND CHAUKIDAR.—The Collector of Húglí writes as follows regarding the remnants of the old police or *faujdarí* organization of the District:—'At the head of the *faujdarí* organization of a *zila* was the *faujdar*, a high officer of great power. Under the *faujdar*s there appear to have been the *pharidárs* and *náib pharidárs*. The duties of the *pharidárs* were to supervise the *chaukidárs*, to receive and submit crime reports, etc.; for the performance of which duties a *bakhshí* or *muharrir* was allowed, who did all the writing. *Bakhshís* are to be found only in that part of Jahánábád Fiscal Division which has been transferred from Húglí to Bardwán and Midnapur. The *pharidár* had also at his command *piyádds*, or messengers to convey intelligence. There were likewise other officers, *nishándárs* and others, especially in Jahánábád Fiscal Division, who probably had similar duties to perform, and several of whom hold their *chákrán* or service lands to this day.' The Magistrate of Howrah reports, on the authority of the District Superintendent of Police, that *pharidárs* and *piyádds* still exist, who are undoubtedly remnants of the ancient village police, and who to this day perform police duties. Under the *pharidár* comes the *chaukidár*, or village watchman, an official who has existed from the earliest times, and who is said to be the only village official who now deserves the name. As his appointment, however, depends on the nomination of the *zamindárs* or *talukdárs*, in many parts of the country he is as much a servant of the landlord as of the public, and is frequently a mere tool of the *gumáshdá* and *mandal*. The *chaukidár* is either remunerated for his services by grants of rent-free lands called *chákrán*, or is paid by contributions from the villagers, called *dwármusháshará*. The duties of the *chaukidár* or village watchman are too well known to need enumeration. He and the *mandal* are always made witnesses to the service of processes issued from our Courts. There are a large number of *chaukidári* service-tenures in Húglí District, which will be alluded to in a subsequent section of this Statistical Account.

THE OTHER VILLAGE NOTABILITIES consist principally of the following:—(1) *Purohit*, or priest; (2) *áchárjya*, or astrologer and

fortune-teller; (3) *mahájan*, or money-lender; (4) *nápit*, or barber; (5) *kámár*, or blacksmith; (6) *máll*, or gardener, who prepares the flower-garlands for the idols; (7) *chhutár*, or carpenter; and (8) *dhobá*, or washermen. These persons, however, long ago ceased to exist as village officials. They held that rank when the old village communes were living units, but these ancient institutions have now disappeared, or are fast disappearing. At the period when they existed, each of the persons named above was strictly a village official, and had lands assigned for his maintenance from the common property of the village community. Now they are simply private servants, carrying on the avocations which their names indicate, and receiving the usual remuneration from the individuals who employ them. It is only in cases of large religious establishments, the expenses of which are defrayed from the endowments assigned for the support of their officiating staff, that *chákran* or service-lands are allotted to the priest who performs the worship; to the barber and washerman who assist in the ceremonies; to the *kumár* or potter who supplies earthen pots and vessels used in placing the offerings before the idols; to the *kámár* or blacksmith who performs the sacrifice; and to the *dom* who attends with his drums, etc. In some *zamíndáris* there are small patches of service-lands assigned to the barber, washermen, potter, and smith for services rendered to the *zamíndár's* family. In almost every village there is a *grám debatá*, or village deity, for whose worship a few *bighás* of land are assigned rent-free, and a Bráhmañ priest is appointed as *sebáit* or servant. These grants are termed *debottar*, or lands assigned for the worship of the gods, and will be further alluded to on a subsequent page, when I treat of the different varieties of land tenures in the District.

THE PANCHAYAT, or old village tribunal for the punishment of offences and settlement of disputes, appears to have almost disappeared from this District. The Collector of Húglí makes the following remarks on the subject:—‘There does not seem to exist any regular *pancháyat* system. It is true that meetings of the *mandals* and others are convened for the purpose of considering the nature and extent of the punishment which any particular person's misconduct should entail, or whether the *zamíndár* should be opposed in an act of oppression, or whether funds for defending an accused party who has public sympathy can be raised; but nothing has ever been heard of a meeting being held for sanitary

purposes, or for purposes affecting the public welfare. The *panchayat* is not an institution in this District.'

FAIRS AND RELIGIOUS GATHERINGS.—The principal places of pilgrimage in the District are at Tribení, where several festivals are held in the course of the year, and at the villages of Máhesh and Ballabhpur, where the car festival of Jagannáth is celebrated with great pomp. The sacred character of Tribení arises, as its name implies, from its being the point of junction of three rivers,—the confluence of the Bhágirathí or Húglí, the Saraswatí, and the Jamuná an important river of Nadiyá and the 24 Parganá, taking place at Tribení Ghát. The *ghát*, which consists of a splendid flight of steps, is said to have been built by Mukund Deo, the last independent king of Orissa, whose dominions extended up to this spot. The principal Hindu festivals celebrated at Tribení are the following :—(1) Makara Sankránti, or Uttaráyan, the day on which the sun enters the sign of Capricorn, held in the month of January, on the last day of the Hindu month of Paush, and the first day of the succeeding month of Mágh. Dr. H. H. Wilson, in his *Essays on the Religion of the Hindus* (vol. ii. pp. 160-162), thus describes the purposes of the ceremonial :—'The essential elements of the celebration are the Makara Sankránti, or sun's entrance into Capricorn, and the Uttaráyan, or commencement of the sun's return to a northern declination. The observances enjoined on this occasion are partly of a private and partly of a public character. The first consist of offerings to the *pitris* or progenitors, whether general, as of all mankind, or special, as of the family of the worshipper; to the *bástu devas*, or domestic genii, the guardians of the dwelling or the site on which it is erected; and to *biswa devas*, or universal gods. The ceremonies addressed to all these are performed within the abode of the householder, and are conducted by the family priest. The principal article of offering is *til* or sesamum seeds, either separately, or, as is more usual, mixed with molasses, or the saccharine juice of the fruit of the date-tree, made up into a kind of sweetmeat called *tilud*. *Pishtakas*, or cakes composed of ground rice mixed with sugar and *ghi*, are also offered. The good things prepared on this occasion are not intended exclusively for those imaginary beings who are unable to eat them. They are presented merely for the purpose of consecration, and that they may be eaten with greater zest by the householder and his family. A portion of them is also sent to friends and relations as memorials

of regard, enclosed in fine linen, silk, or velvet, according to the means of the presenter, and the station of those to whom they are presented. In many places in Bengal a curious practice is observed, called *báwanna bandhan*, particularly by the females of the family. In the evening, one of the women takes a wisp of straw, and from the bundle picks out separate straws, which she ties singly to every article of furniture in the house, exclaiming *báwanna pauti*, implying, may the measure of corn be increased fifty-two *pauti*, denoting a measure of grain. In the villages, similar straws are attached to the *golds* or granaries in which the grain of the preceding harvest has been stored.' The public religious ceremonies in connection with this festival consist in prayers and in bathing in certain sacred streams. I have already described the great Bathing Festival held on this occasion on Ságar Island, at the confluence of the Ganges with the sea, in my Statistical Account of the 24 Parganá. A *melá* or fair is held at Tribení on the occasion of the festival, which usually lasts for three days, and, according to the Bengal Police Report for 1870, is attended by about eight thousand persons.

The other principal festivals of the year celebrated at Tribení are as follow :—Bisuva Sankránti, held in honour of the sun at the time of the vernal equinox, on the last day of the Hindu month of Mágh, falling within our February. The principal religious rite consists in bathing. Báruní, the great Bathing Festival of Bengal, held in February or March, in the Hindu month of Phálgun, in honour of Baruna the god of the waters. The fair and religious ceremony only last one day, and are attended by about six thousand persons. Dasahará, held in the month of June, within the Hindu month of Ashár, in honour of the goddess Gangá, in commemoration of her descent from heaven as the river Ganges to save the souls of the sixty thousand sons of King Ságar, who were reduced to ashes for the crime of assaulting a Bráhma sage. I have given the traditional account of the origin of the river Ganges in my Statistical Account of the 24 Parganá. The festival lasts one day. Kártik *pújá*, on the last day of the month of the same name, falling within our November, is in honour of the god Kártikeya, the son of the goddess Durgá. The fair and religious ceremony last for one day only, and are attended by about four thousand persons. Such gatherings are always utilised for purposes of trade.

MAHESH.—Two great festivals connected with the god Jagannáth,

the ninth incarnation of Vishnu, are held at the villages of Máhesh and Ballabhpur, within a short distance of the Subdivisional town of Serampur. The first is the Snán-játrá, or bathing festival of Jagannáth, which takes place at the full moon of the month of Jaishtha, falling within the English month of May. It only lasts for one day, but is attended by an immense concourse of people from the neighbouring villages and from Calcutta. The ceremony simply consists in bringing the god out of his temple on to a platform, and bathing him in the presence of the multitude, who make offerings of money to the deity. Six weeks after the bathing festival, the *rath-játrá* or car festival takes place. The god is again brought out of his temple at Máhesh, placed on a huge car, and dragged by the assemblage for a distance of about a mile to the village of Ballabhpur, where he is placed in the temple of another god, Rádhaballabh, and, after the lapse of eight days, the *ultá-rath* or return journey takes place, and the god is escorted back to his temple in the same way as he was brought out. A large fair is held at Máhesh at the time of the festival, which lasts for eight days. People combine business with pleasure; and long lines of booths are constructed, in which a brisk trade is carried on in cloth and trinkets, such as looking-glasses, combs, boxes, caps, mats, hookahs, children's toys, etc. Although the fair lasts for eight days, the religious ceremonial is confined to the first and eighth days, that on which the idol is taken to Ballabhpur, and that on which it is conveyed back to Máhesh. On these days the crowd is immense, and on some occasions it is estimated to amount to a hundred thousand persons. On the intermediate days the attendance is much smaller; the average being computed to amount to about eight thousand persons daily.

TARAKESWAR SHRINE is another place of great sanctity, and pilgrims flock thither at all times of the year, principally for the fulfilment of vows on recovery from sickness. Two large religious gatherings for the worship of Siva, the deity of the temple, are held every year. The first of them is the Sivarátri, held in the month of February, on the fourteenth day after full moon, in the month of Phálgun, a day specially sacred to Siva. I quote the following account of the ceremonies at this festival, and of its origin, from Dr. H. H. Wilson's *Essays on the Religion of the Hindus* (vol. ii. pp. 211-219):—'This ceremony, in the estimation of the followers of Siva, is the most sacred of all their observances, expiat-

ing all sins, and securing the attainment of all desires during life, and union with Siva, or final emancipation, after death. The ceremony is said to have been enjoined by Siva himself, who declared to his wife Umá that the 14th day of the dark half of Phálgun, if observed in honour of him, would destroy the consequences of all sin, and confer final liberation. According to the *Ishána Sanhitá*, it was on this day that Siva first manifested himself as a marvellous and interminable Linga, to confound the pretensions of both Brahmá and Vishnu, who were disputing which was the greater divinity. To decide the quarrel, they agreed that he should be acknowledged the greater who should first ascertain the limits of the extraordinary object which appeared of a sudden before them. Setting forth in opposite directions, Vishnu undertook to reach the base, Brahmá the summit; but after some thousand years of the gods spent in the attempt, the end seemed to be as remote as ever, and both returned discomfited and humiliated, and confessed the vast superiority of Siva. The legend seems to typify the exaltation of Siva-worship over that of Vishnu and Brahmá, an event which no doubt at one time took place.

'The three essential observances of the Sivarátri are, fasting during the day, and holding a vigil and worshipping the Linga during the night; but the ritual is loaded with a vast number of directions, not only for the presentation of offerings of various kinds to the Linga, but for gesticulations to be employed, and prayers to be addressed to various subordinate deities connected with Siva, and to Siva himself in a variety of forms. After bathing in the morning, the worshipper recites his Sankalpa, or pledges himself to celebrate the worship. He repeats the ablution in the evening, and, going afterwards to a temple of Siva, renews his pledge, saying, "I will perform the worship of Siva, in the hope of accomplishing all my wishes, of obtaining long life and progeny and wealth, and for the expiation of all sins I may have committed during the year." He then scatters mustard-seed with special *mantras*, and offers an *argha* (a few stalks of *durba* grass and a few grains of rice); after which he goes through the *mátriká nyása*, a set of gesticulations, accompanied by short mystical prayers, consisting chiefly of unmeaning syllables preceded by a letter of the alphabet,—as, A-kam, A-srán, salutation to the thumb; I-chan, I-srin, salutation to the forefinger; U-stan, U-stum, salutation to the middle finger; and so on, going through the whole of the alphabet with a salutation or

namaskár to as many parts of the body, touching each in succession, and adding, as the *mantras* proceed, names of the *mátris*, female *saktis*, or energies of Siva who by virtue of these incantations are supposed to take up their abode for the time in the different members of the worshipper. The repetition of *nyása*, or touching parts of the body, whilst repeating mystical ejaculations, accompanies every offering made to the Linga, such as fruits, flowers, incense, lights, etc., during the whole ceremony.

‘When the rite is performed, as it most usually is, in the performer’s own residence, a Linga, if not already set up, is consecrated for the purpose ; and this is to be propitiated with different articles in each watch of the night on which the vigil is held. In the first watch the Linga is to be bathed with milk, in the second with curds, in the third with *ghi*, and in the fourth with honey, the worshipper or the Bráhmañ priest uttering prescribed *mantras* on each occasion. Incense, fruits, flowers, and articles of food, such as boiled rice, or sometimes even dressed flesh, are also offered, with the customary prostrations. At the end of the fourth watch, or daylight, the ceremony is concluded with the following prayer :—“Through thy favour, O Iswara (Siva) ! this rite is completed without impediment: oh, look with favour, lord of the universe, Hara (Siva), sovereign of the three worlds, on what I have this day done, which is holy and dedicated to Rudra (Siva) ! Be propitious to me, O thou most glorious ! Grant to me increase of affluence ; merely by beholding thee, I am assuredly sanctified.” Oblations to fire are then to be made, and the ceremony concludes with further offerings to the Linga, and with the following *mantra* :—“By this rite may Sankara (Siva) be propitiated, and, coming hither, bestow the eye of knowledge on him who is burnt up by the anguish of worldly existence.” Bráhmañs are then to be entertained, and presents are to be made to them by the master of the house.

‘The worship of Siva, at the time of the Sivarátri, is permitted to all castes, even to Chandáls and to women, and the use of the *mantras* seems to be allowed to them, the only exception being the mystical syllable *Om*. This they are not allowed to utter ; but they may go through the acts of worship with the prayer “Siváya namah.” The same rewards attend their performance of it with faith,—elevation to the sphere of Siva, identification with him, and freedom from future birth ; and these benefits accrue even though the rite be observed unintentionally and unwillingly, as illustrated

by the following legend of a forester, related in the second part of the Siva Purána, chap. xxxiv :—“ Being benighted in the woods on the occasion of the Sivarátri, the forester took shelter in a *vilwa* tree. Here he was kept in a state of perpetual wakefulness by dread of a tiger prowling round the foot of the tree. He therefore observed, though compulsorily, the *jágarana* or vigil. The forester had nothing with him to eat, consequently he held the fast. Casting down the leaves of the tree to frighten the tiger, some of them fell upon a deserted Linga near the spot, and thus he made the prescribed offering. On the ensuing morning the forester fell a prey to the tiger, but such was the fruit of his involuntary observance of the rites of the Sivarátri, that when the messengers of Yama came to take his spirit to the infernal regions, they were opposed by the messengers of Siva, who enlisted him in their ranks, and carried him off in triumph to the heaven of their master.”’ Although the religious ceremony in connection with the Sivarátri only lasts one night, a considerable *melá* or fair, which is held near the shrine on the occasion, continues for three days. It is estimated that twenty thousand people annually visit Tárakeswar shrine on the occasion of the Sivarátri.

The second great religious festival held at the Tárakeswar temple is the Chaitra Sankránti, on the last day of the Hindu month of Chaitra and of the Bengali year, falling within April. It is also the day of the swinging festival. The temple of Tárakeswar is visited by a large number of persons from the surrounding neighbourhood, within a circuit of forty or fifty miles, during the whole of the month of Chaitra. These persons generally belong to the Súdra castes, who come here for purposes of penance, or to lead a temporary ascetic life, either for the fulfilment of a vow made to Siva in sickness or in a time of danger, or for the purpose of gaining a reputation for piety. During ten days the devotees chasten the flesh by fasting on spare food, wearing sordid clothes, etc. In former times, on the last few days of this period of penance, which ends with the Chaitra Sankránti, self-inflicted tortures were added to the ordinary penance. Numbers of Sivaite ascetics called Sanyásis and other religious fanatics, with the view of obtaining favours from Siva and as an expiation for their sins, voluntarily subjected themselves to tortures by walking upon live embers, throwing themselves down from a height, piercing their body and tongue with pincers, etc. ; concluding on the last day (that of the

Chaitra Sankranti) with swinging themselves from a high pole by means of hooks pierced through the fleshy muscles on both sides of the spine. These and other practices of the sort are now prohibited by Government; and the swinging festival of the present day is a very harmless affair compared to what it used to be in olden times, the votaries now being merely suspended by a belt. The fair at this shrine lasts for six days, and is estimated to be attended by about fifteen thousand people.

THE MATERIAL CONDITION OF THE PEOPLE: CLOTHING, FOOD, ETC.—The establishment of the railway, and the extensive operations of the Public Works Department of late years, have caused a great demand for labour with a consequent rise in the price of wages and produce, and have considerably ameliorated the condition of the people. In former years a labourer or petty agriculturist could scarcely manage to supply himself with the bare necessaries of life, while in bad seasons, or on other occasions of distress, his destitution was extreme. Now, however, after defraying all his expenses, he manages to save something out of his earnings or from the produce of his fields. This he carefully hoards up against sickness, seasons of scarcity, and other visitations of Providence; or, as is oftener the case, he saves for years only to squander the more freely on wedding ceremonies and festive occasions.

The ordinary dress of a well-to-do shopkeeper generally consists of a cotton *dhuti*, or waistband, wrapped round the loins and falling over the legs as far as the knee; a *chádar*, or cotton sheet or shawl, which serves as a covering for the upper part of his body; and a pair of country-made shoes. To this is sometimes added a *pirán*, or sort of short coat. An average husbandman wears a *dhuti* of smaller dimensions and coarser material, and a small *chádar*, convertible into a head-dress and worn as a turban when he is at work in the fields. Only the well-to-do agriculturists wear shoes. The building materials for the dwelling of a well-to-do shopkeeper consist simply of earth and posts, with a thatched roof. His habitation usually comprises from three to five one-storied rooms, with a shed or large verandah outside for the reception of visitors. The homestead is surrounded by an enclosure; the cost of building being about £50. The furniture met with in such a house consists of several sorts of brass or pewter utensils for cooking and for eating and drinking from; some earthen pots, also for cooking; one or two earthen water jars; a few wooden stools, a few mats, and one or two

takhtposhes, or plank bedsteads of coarse construction. The dwelling of an ordinary husbandman is much smaller and less substantial, being composed simply of mud, straw, and bamboos. It usually consists of two or three rooms. The general cost of such a dwelling is about £2; although the houses of the more prosperous class of husbandmen sometimes cost as much as £15 and upwards. The furniture, if so it may be called, of an average peasant consists of a few brass and earthenware vessels, a stool or two, and a few mats for sleeping on. Some of the richer husbandmen also possess a large strong box, in which they keep their clothes and whatever valuables they possess, such as their wives' ornaments, rent receipts, etc. The shopkeeper lives on rice, pulses (*dadl*), clarified butter (*ghi*), curries made of fish or vegetables, sweetmeats, milk, etc. The food of an ordinary peasant consists simply of rice and a curry made of vegetables, with occasionally a little fish. The Magistrate of Howrah, in his report to me, estimates the living expenses of a well-to-do shopkeeper to amount to from £3, 10s. od. to £5, 0s. od. per month, and of a cultivator to from £1 to £1, 10s. od. per month. This latter estimate seems high, and is rather the scale of living of a prosperous agriculturist than of an ordinary peasant. Not many of the cultivating classes make more than nine rupees (18s.) per month out of their fields. It must be remembered, too, that a husbandman himself produces the greater portion of what is required for his family's support. The Collector's figures probably represent what would be the cost of living if everything had to be purchased in the bázár. In the Howrah Magistracy, where there is a large demand for skilled labour, artisans and mechanics are said to be better off than the cultivating class, and the Magistrate estimates the living expenses of an ordinary-sized family of such a household to be from £1, 10s. od. to £2, 0s. od. or upwards per month.

AGRICULTURAL: RICE CULTIVATION.—Rice forms the principal product of the District. Three crops of it are raised during the year, viz. *boro*, or spring rice; *ás* or *nidhí*, the autumn rice; and *aman* or *haimantik*, or winter rice, the great crop of the year.

The *boro*, or spring rice, consists of two varieties, called *chaití boro* and *jondá boro*. The first description is sown in Paush and Mágh (December to January) in a nursery; it is afterwards transplanted, and the crop is reaped in Chaitra and Baisákh (April—May). The *jondá* crop consists of the plants growing from seed which falls to the ground at the time when the *chaití boro* is reaped. These are

not transplanted, and the crop is harvested in Srában and Bhádra (July—August). The *boro* rice is cultivated in low-lying marshy lands, which do not require to be ploughed. The plants thrive in water which reaches within an inch or two of their tops.

The *ás* or *nídlí* rice, which forms the autumn crop, is sown as soon as possible after the first good fall of rain, generally in Baisákh (May). The husbandmen anxiously look out for a timely shower, to enable them to plough and prepare the land; if this fails, the sowing season is delayed, and the produce of the crop becomes proportionately less. *Aus* rice is cultivated on high land, such as that suited for pulses, potatoes and other vegetables, which are grown as a second crop in the winter, after the rice has been harvested. This rice is generally sown broadcast on the fields, but is occasionally transplanted; in both cases the crop is reaped in Bhádra or Aswin (August—September).

The *áman* or *haimantik* rice, which forms the winter crop, and is the great rice harvest of the year, consists of two principal varieties. One of these, called *kártik sál*, is sown on high and dry lands in Baisákh or Jaishtha (May—June), afterwards transplanted, and finally reaped in Kártik (Oct.—Nov.), the month after which it is named. The other, or ordinary *áman*, which is cultivated to a much greater extent than the first, is also sown in a nursery in Baisákh or Jaishtha (May—June), afterwards transplanted into carefully prepared fields in low-lying situations, and reaped in Paush or Mág (December—January), so that the former variety takes from two to three months less time to ripen than the latter.

A considerable quantity of the finer kinds of table rice is cultivated in Húglí, principally for the Calcutta market. Of ordinary coarse rice the District does not grow sufficient to meet the wants of its own population, and large supplies are imported from other parts of the country. No alteration has taken place of late years in the sorts of rice grown. The increased value of produce, and enhanced rates of rent, however, have led to an important extension of rice cultivation within the last twenty years; and a considerable area of land which formerly lay waste, has been brought under tillage. In consequence, however, of the heavy mortality caused by the epidemic fever which has been afflicting the District since 1860, the rice-growing lands are not cultivated to their full extent in certain localities, and during some time lay waste for want of hands to till them (1871).

THE NAMES OF THE RICE PLANT in the different stages of its growth are as follow :—*Bij dhán*, the seed ; *bihan*, the young plant ; *gáchh*, the plant a little older ; *garbha-thor*, the plant just before the ear forms ; *phulá*, the flowering plant ; *dudh-mukhí*, when the grain first begins to form in the ear ; *kshír-mukhí*, when the grain begins to harden in the ear ; *dhán-gáchh*, the full-grown plant ready for reaping ; *dhán*, unhusked rice ; *chául*, husked rice ; *bhát*, boiled rice.

THE DIFFERENT PREPARATIONS MADE FROM RICE ARE THE FOLLOWING :—*Chirá*, paddy first steeped in water, afterwards parched, then husked and flattened in a rice mortar ; price three halfpence per pound. *Muri*, paddy steeped in water and boiled, then a second time steeped in water and boiled, afterwards dried, husked, and parched ; price threepence per pound. *Khai*, paddy parched and husked ; price about threepence per pound. *Saphedá*, rice powder used to adulterate wheat flour, and for confectionery purposes ; price from a penny to a penny farthing a pound. Various sorts of cakes and sweetmeats are also prepared from rice ; they are principally made for home consumption, and are rarely sold in the *bázárs*. The principal liquid preparation made from rice is *pachwai* or rice beer, made by fermenting rice in the ordinary manner, with the addition of a number of drugs worked up into a paste called *bákar*. It is only used by the lowest castes of Hindus, and in the west of Húglí sells at under a penny a quart. *Mad*, or rice spirits, sells at about 1s. 6d. a quart bottle.

OTHER CEREAL CROPS.—*Jab*, or barley, is sown on high and dry land in Kártik (October), and reaped in Phálgun (March). It is largely cultivated throughout the District ; sometimes sown in a field by itself, and at others together with a crop of mustard-seed or pulses, such as *musurí* or *kaláí*, etc. To prepare it for consumption, it is generally first parched, then husked, and pounded into flour, and mixed with molasses. *Gam*, or wheat, is sown on the same description of land, and planted and reaped at the same seasons as barley. As a crop, however, it is only grown by a few persons, and then in very small quantities. It grows luxuriantly in fields situated near river beds. *Janár* or *bhuttá*, Indian corn (*zea mayz*), sown in Ashár (June), and cut in Bhádra (August—September). It is largely cultivated in the vicinity of the town of Howrah, from which the Calcutta market is supplied. As an article of food, it is used as a dainty by the poorer classes of natives, either by roasting the tender ear just before ripening, or by parching

the grain into *khai*, in the same way as rice. *Dedhán* or *deb dhán* (andropogon sorghum), a species of cereal grain, cultivated in small quantities in parts of the District. It is sown and ripens at the same period as Indian corn, to which the stem and leaves of the plant have a great resemblance. The grain, however, is smaller than Indian corn, and is not enclosed in an ear, but grows on very minute twigs, shooting from the top of the plant. The grain is gathered by hand, and the stalks of the plant are either burned down to fertilize the field, or are used for household fuel. The grain is only used as food by the very poor, who parch it into *khai* in the same manner as rice.

PULSES AND GREEN CROPS.—*Mug* (phaseolus mungo), sown in dry land in October or November, and reaped in February or March. *Mug* consists of three varieties, known as *soná mug*, *krishna mug*, and *ghorá mug*, of which the first is the best. It is generally eaten with rice, the grain being boiled into a kind of thick soup called *ddl*. It is sometimes also eaten raw with sugar, the grain being first split, and afterwards steeped in water and husked. The two last named varieties of *mug* are of inferior quality, and are only consumed by the poorer classes on account of their comparative cheapness. *Matar* or peas (pisum sativum), sown on dry land in October or November, and gathered in February or March. This crop is of four kinds,—*olondá matar*, *bhuro matar*, *pahári matar*, and *páirá matar*. The first named is the largest and best variety, the other three being very hard and of small size. As an article of food, peas are used both in their green state as a vegetable, and as *dál* when dried. *Máskaláí*, a kidney bean (phaseolus Roxburgii), sown just after the rains have subsided, generally between the middle and end of September, and gathered in January. It is a crop very little cultivated in the District, being principally imported from the country north of the Padmá, where the annual inundations of the great river render the soil peculiarly favourable to its growth. It is used together with rice, and is sometimes made into cakes. *Thikrá kálí* (phaseolus M. melanospermus), an inferior description of pulse, sown on dry lands in June, and gathered in October or November. This crop requires very little attention in cultivation, the seeds being simply scattered broadcast on inferior *áus* lands, and the plant left to itself till it reaches maturity. It is used as a *ddl*, and also as an ingredient for curries. *Musurí* (ervum lens), a pulse sown on dry lands in October, and reaped in February or

March. *Khesári* or *teorá* (*lathyrus sativus*). This variety of pulse, like *thikrá*, requires very little labour or attention in cultivation. The seeds are usually sown broadcast in a field where *áman* rice is growing, in the month of October; while the rice is on the ground, the plant grows very slowly, but after the rice harvest in December or January it rapidly ripens, and is gathered in February or March. *Khesári* is not usually a productive crop, but the outlay on cultivation is limited to the cost of the seed, and the labour to that of gathering the plant. Along the banks of the Dámodar, where inundations cause much damage to the rice crop, the peasants, as soon as the waters have subsided from their fields, sow them broadcast with *khesári* on the rich alluvial deposits left by the floods, and obtain heavy crops, which compensate them to some extent for their loss. As an article of food, *khesári* is considered unwholesome, and it is only eaten by the poorer classes in the shape of *dál*. *Arhar* (*cajanus Indicus*), sown on dry lands in June, and gathered in January or February. The plant grows to a very large size, and is considered to be an exhausting crop. It consists of two varieties, ordinary *arhar*, and *tumur*. *Arhar* is frequently sown along the boundaries of fields, the interior of which is planted with jute, fruit-trees, or other valuable crops. As an article of food, it is only used as a *dál*. *Chholá* or gram (*cicer arietinum*), sown on dry lands in October, and reaped in February or March; not much cultivated in Húglí, and chiefly imported from the Behar Districts. It is used as a *dál*, and also eaten raw by the people; but in towns or places where there is an European community, it is principally used as food for horses. *Rambhá*, a description of pulse, the scientific designation of which I have been unable to ascertain; sown on high dry land in the month of October, and gathered in February or March.

OIL-SEEDS.—The oil-seed crops grown in Húglí District are the following:—*Sarishá*, or mustard (*sinapis dichotoma*), sown on dry land in October, and cut in February or March. It is sometimes sown alone, and at other times along with pease, *musurí*, barley, or other crops grown on high land. The oil from the seed is expressed by means of a mill driven by oxen. *Til* (*sesamum orientale*). This crop consists of two varieties,—*krishna til*, sown in June or July, and cut in September or October; and *kát til*, sown in January or February, and cut in July. Like *khesári*, *til* is often sown broadcast as a second product on rice fields, the first crop of which has

been destroyed by inundation. The oil extracted from the seed is used medicinally by native physicians. A description of sweetmeat is also made from *tíl* seed.

FIBRES.—*Pát*, or jute (*corchorus olitorius*), sown in June, and cut in August or September. The *dest* jute, which is the name of the variety of the fibre grown in the Districts south of the Padmá, is largely cultivated in the Mandalghát Fiscal Division of Húglí District; the total area under jute cultivation in the District being returned at fifty-four square miles. The increasing demand for jute gave a great impetus to its cultivation, and the price of the produce has fallen within the last few years from Rs. 5·8 (11s.) to Rs. 2·10 or even as low as Rs. 2 (4s.) a cwt. The Special Commissioners appointed to inquire into the jute trade of Bengal visited Húglí District in April 1873, and reported that in consequence of the lowness of prices a large quantity of the crop of the season 1872-73 then remained unsold, and that those who could afford to do so were holding back their stocks, in hope of commanding better prices. The principal jute mart in Húglí District is Baidyabátí, whither almost all the jute grown in the 24 Parganáas and in the northern part of Húglí District is taken for sale. A detailed description of jute cultivation will be found in my Statistical Accounts of the Districts of Maimansinh and 24 Parganáas. *Son* or *san*, hemp (*crotolaria juncea*), sown in June, and cut in August, and cultivated to a considerable extent throughout the District. The principal difference between *pát* and *son* is that the fibres of the former are soft and fine, while those of the latter are coarse and tough, and largely used in rope-making. *Dhanichá* (*Sesbania aculeata*), a coarse description of fibre, used in making common ropes, extracted from a plant growing in sandy soil along the banks of the Húglí, and in other inferior lands. The stalks of the plant, after the fibre has been extracted, are used for thatching *pán* gardens. The plant is sown in June, and cut the following March. *Kápás*, or cotton (*gossypium herbaceum*), is of two varieties, *kápás* and *tulá*, both descriptions being planted in March, and the cotton gathered from July to September; very little cultivated in Húglí District.

VEGETABLES.—Húglí District is noted for its large vegetable gardens, principally situated along the bank of the river and the line of railway, for the supply of the Calcutta market. The principal vegetables produced in the District are the following:—

Gol álu, or potatoes (*solanum tuberosum*), are largely cultivated in the old bed of the Saraswatí river, and find a ready market at the Baidyabátí *háť*. The land is prepared with great care; it receives several deep ploughings, and is well manured and irrigated. The seed is sown in September or October, and the tuber dug up in December or January. The cultivation of the potato was first introduced into Bengal by the English towards the close of the last century. For a long time it was objected to as an article of food by orthodox Bráhmans upon religious grounds, but at present it has become almost a necessary, and all classes who can afford it eat it without scruple. *Mán kachu*, or yam (*Colocasia Indica*), and *gunrí kachu* (*arum colocasia*), another species of yam, are also largely cultivated, seldom in fields, usually in homestead gardens, where they are plentifully manured with ashes and household refuse. They are sown in June, and dug up in September. Yam is much used as a vegetable among the natives, but to a less extent than formerly, owing to the introduction of potatoes. *Chupri álu*, another species of yam (*dioscorea globosa*), principally sown near the hedges of gardens, or close to a tree, which the plant may climb up; sown in June, and dug up in January or February. Formerly it was largely used as a vegetable by the natives, but is now almost entirely superseded by potatoes. *Ol* (*arum campanulatum*), another variety of yam, sown in May or June, and dug up in September; used by natives as a vegetable, boiled and eaten with mustard, oil, and salt. *Sarkar kanda* or *rángá álu*, a description of sweet potato (*batatas edulis*), is also largely cultivated. It is planted from cuttings in June, and the tuberous root dug up in October or November. The root is eaten raw, and also boiled as a vegetable. *Kapi*, or cabbages, are also largely produced in Húglí, and great care is taken in their cultivation, the land requiring to be well and frequently ploughed and manured, and constantly irrigated. Sowing takes place in September; the young plants are transplanted in October, and are cut when they arrive at maturity in January, February, or March. Three varieties of *kapi* are cultivated,—the ordinary cabbage (*stál* or *bándhá kapi*); *ol kapi*; and the *phul kapi*, or cauliflower. Cabbages were only introduced into the District within recent years, and for a long period the upper classes of Hindus had a great objection to eat them. The prejudice has almost entirely died away, and the vegetable now forms a favourite article of food with a large class

of the population. *Sálgam*, or turnips, sown in October, and gathered in January, are also largely cultivated, but are eaten chiefly by Europeans and Muhammadans. This is the most recently introduced of European vegetables, and Hindus have not yet become accustomed to it as an article of food. *Báigun*, or fruit of the egg plant (*solanum melongena*), a favourite vegetable with the natives, largely used in the composition of curries. The seed is first sown in a nursery near the house of the cultivator, in June, the young shoots being transplanted a month later into a field previously well ploughed and manured, and planted in rows two or three feet distant from each other; the plants soon grow into shrubs about two feet in height. The shrub begins to yield produce from October to about the following March, when it is cut down. A crop of *báigun* is very exhausting to the powers of the land, and cannot be grown on the same field for more than two years in succession. Land which has been allowed to lie fallow for several years is best suited for this plant. The variety of *báigun* called *muktakesi* is considered to be the best; a variety called *puli báigun* is little cultivated. *Patal* (*patu*), a cucurbitaceous plant (*trichosanthes dioica*), a favourite vegetable among the natives, and largely cultivated in the District. The land intended for its reception requires to be well dug over with the spade to a depth of at least eighteen inches, and sowing takes place in the middle of August. The plant, a creeper, commences to yield about the following April, and continues to do so till July, when it is dug up, and the land again prepared for another crop. The leaves of the plant, called *paltá*, are eaten with curry; and an infusion of the leaves is frequently prescribed by native physicians as an antibilious draught. *Láú*, or pumpkin (*lagenaria vulgaris*), is cultivated to a considerable extent, being generally grown near the house, and a thatch built for the creeper to spread over. Occasionally the creepers are trained over the roof of the houses, and it is no uncommon thing to see the thatch of a hut almost covered with enormous pumpkins. It is sown about September, just after the cessation of the rains, the pumpkins ripening in the cold weather from December to February. *Kumrá*, a kind of gourd (*benicasa cerifera*), consists of two varieties, *desi* or *chál kumrá*, and *biláti kumrá*, both sown in June, and ripening from July to September; much used by natives. The second-named variety, which is considered to be the best, is largely cultivated in

the western part of the District bordering on the Dámodar river, and is exported in considerable quantities to towns along the banks of the Húglí and to Calcutta. *Chichingá*, the snake gourd (*trichosanthes anguinia*), the produce of a creeper which ripens in the rainy season; only eaten by Muhammadans and low caste Hindus. *Uchchhe*, a description of gourd (*momordica charantia*), produced in spring, and used as a vegetable with curries by the natives; it has a rather bitter taste. Another variety of the plant is called *karalá*, and is grown in the winter season. *Jhingá* (*luffa acutangula*), the produce of a creeper plant ripening in September, and cooked into a curry by natives. *Múlá*, or radish (*raphanus sativus*), sown on high dry lands in September, and gathered in December or January; large quantities of it are sold at the Baidyabátí market. Radishes are not often eaten in a raw state by natives, but are cooked and eaten with rice; the leaves also are used as a vegetable. Two varieties of beans are grown in Húglí District,—the *barbatí*, the pods of which are cooked as a vegetable, and the beans themselves eaten raw; and several varieties of *sim*, or kidney beans, which are cooked into a vegetable curry. The other native vegetables produced in the District are the following:—*Note*, a species of amaranthus grown in the hot season; *dengo* (*amaranthus lividus*), grown in the rains; *pálang* (*beta Bengalensis*); and *piring* (*trigonella corniculata*), grown in the cold weather. The leaves and stems of these plants are used for making vegetable curries.

FRUIT-TREES.—The principal fruit-trees in the District are the following:—Mango, leechie or litchi, peach, jack, cocoa-nut, guava, lime, papaya, custard apple, *bel*, palm, tamarind, small date, blackberry, and roseberry. The plantain, or *kalá* (*musa paradisiaca*), in several varieties, is largely cultivated in Húglí District for the Calcutta market as well as for local consumption. The five chief varieties are those known as the Martaban, *chámphá*, *kánthállí*, *Kábuí*, and *kách-kalá*. Immense quantities of plantains are sold at the Baidyabátí market, which is held twice a week. The *kách-kalá* variety of plantain is eaten before it ripens, being cooked as a vegetable; the other descriptions are eaten raw when ripe. The plantain-stem only yields fruit once, and then dies; but a garden once planted with a grove of plantains will continue to yield fruit for ten years or more; the old tree when it dies down gives place to a number of young plants, which spring up and bear fruit in a very short time. *Anáras*, or pine-apple (*ananassa sativa*), is also cultivated to a

considerable extent ; the fruit ripens and is in season from May to July. *Tarmuj*, or water melon (*cucurbita citrullus*), is largely produced in the hot season, and is exported in considerable quantities to Calcutta and other places. The soil near the bed of the Saraswatí *khdí* and along the bank of the Dámodar is said to be peculiarly suited to its cultivation. *Phutí* (*cucumis momordica*), largely cultivated in the hot season in the bed of the Saraswatí. The fruit in its ripe state is called *phutí*, and when green, *kdkur*.

MISCELLANEOUS CROPS.—*Akh* or *ikshu*, sugar-cane (*saccharum officinarum*). The cultivation of sugar-cane requires great care, and its production has been brought to a high state of perfection in Húglí District. The land at first receives several ploughings, and is afterwards plentifully manured with cow-dung and oil-cake. Cane cuttings are in the meanwhile nursed in a moist spot of ground near the homestead of the cultivator. After the cuttings have struck, they are transplanted in the months of April or May into the field specially prepared for their reception, which requires continual irrigation. As the plants grow, the leaves are folded round the cane, for the purpose of keeping off the attacks of insects. The cane ripens and is cut in the months of January or February. It comprises three principal varieties,—Bombay, *sámsará*, and *puri*. After the cane has been cut, the stumps left in the field throw out new shoots, and no new planting is required for two more years. In some fields, however, new cuttings are planted every year. Jackals and wild pigs occasionally do considerable damage to the sugar-cane crop. *Nil*, or indigo (*indigofera tinctoria*), is cultivated in the southern portion of the District, but to a much less extent at present than in former years, and many factories have been abandoned. There are two seasons for sowing indigo ; one known as the ‘spring sowings,’ in which the seed is put into the ground in the month of March after the first seasonable fall of rain, and the crop cut in June ; and the ‘autumn’ or October sowings, the crop of which is also reaped in June. If favourable weather, such as alternate showers and sunshine, is obtained, the spring indigo yields a splendid out-turn. But it is a very precarious crop, and bad weather when the plant is on the field, or heavy rains at the time when it should be cut, completely spoils it. The chances, however, of a good season are held to be sufficient to counterbalance the risk. A more detailed description of indigo cultivation will be found in my Statistical Accounts of

Nadiyá and Jessor Districts. *Tut*, or mulberry (*morus Indica*), is cultivated largely, principally in the Howrah portion of the District. The tree is planted in the month of February or March, and commences to bear fruit in about fifteen months. Mulberry-trees, however, are not reared for the sake of the fruit they afford, but principally for the production of silk. *Támák*, or tobacco (*nicotiana tabacum*), is sown in October, and cut in the following March; the leaves are dried, and in that state are exported to Calcutta and other places in considerable quantities. *Pán* (piper beetle) of excellent quality is largely grown in Húglí; that cultivated at Begampur, a village a few miles west of Serampur, being considered the best. Great care and attention are required in the cultivation of this crop. In the first place, the site on which it is grown has to be raised above the level of the surrounding land by soil dug up from a neighbouring field; the place thus dug out serves as a tank for irrigating the garden. A *pán* garden is always hedged in and thatched for the purpose of excluding the sun. The creeper is planted in the months of May or June just before the setting in of the rains, and trained on sticks; the leaves become fit for picking in about twelve months. A *pán* garden once formed is continually kept up by new plants being substituted for old and decaying ones, and the soil is nourished by frequent manurings of cow-dung and oil-cake. *Pán* is considered to be a very remunerative crop; but the expenses of its cultivation are great, and the Báruis, who are *pán* growers by caste occupation, although well to do, seldom make a fortune, and few of them can be termed rich. *Pán* is largely used by all classes of natives, chewed with lime, areca nut, etc., as a digestive after meals. *Piyáj*, or onions, sown in September or October, and gathered in February; chiefly used by Muhammadans and low-caste Hindus. *Rasun*, or garlic, very little cultivated, and chiefly used by Muhammadans. *Halud*, or turmeric (*curcuma longa*), sown in shady gardens in the month of June, and dug up in the following March. *Adá*, ginger (*zinziber officinale*), sown in June, and cut from December to February. *Lanká*, or chilies, not much cultivated in Húglí District; sown in June, and gathered in October; largely used by natives as a spice. I am indebted to the kindness of Dr. King, M.D., Superintendent of the Botanical Gardens, Calcutta, for checking most of the scientific names in the foregoing list. Being no botanist myself, I can only endeavour to thus secure the best verification of the native products.

AREA OF THE DISTRICT; OUT-TURN OF CROPS, ETC.—The total area of Húglí and Howrah District, excluding the portions of Chandrakoná and Bardá Fiscal Divisions recently transferred to Midnapur, and of Jahánábád, etc., transferred to Bardwán District, is returned in the Census Report of 1872 at 1424 square miles. Prior to these transfers, the area was returned by the Surveyor-General at 1962 square miles. A re-survey of the District has just been concluded, and the exact area ascertained to be 1482·46 square miles. The necessary papers, new maps, etc., are not yet available, from which to estimate the acreage under the principal crops. The Collector, however, reports that of the total area of the District, about five-eighths may be estimated as under cultivation; about one-eighth occupied by rivers, *khdls*, roads, and houses; about one-eighth as lying waste, but capable of being brought under cultivation; and the remaining one-eighth as covered with jungle and marshes, and incapable of cultivation. Of the total cultivated area, the Collector roughly estimates that about ten-sixteenths are occupied by *áman* or winter rice; three-sixteenths by *áus* or autumn rice, and the different varieties of vegetables and pulses grown as a second crop in winter after the rice has been harvested; and the remaining three-sixteenths by other crops, such as jute, *pán*, tobacco, sugar-cane, etc. (1871).

The Collector of Húglí reports that for land paying a rent of 9s. an acre, a fair average out-turn would be from seven to nine hundredweights of unhusked rice per acre, or three to four *maunds* per *bighá*; and for superior land, renting at £1, 1s. od. per acre, from twenty-six to thirty-three hundredweights per acre, or from twelve to fifteen *maunds* per *bighá*. The price of paddy varies in different years from 1s. 8d. to 2s. 8d. a hundredweight, or from ten *ánnás* to one rupee per *maund*. Including the value of the straw and of the second crop of pulses or vegetables grown on some classes of paddy lands after the autumn rice has been taken off the ground, the Collector is of opinion that the average value of a whole year's produce from an acre of land renting at 9s. would be about £1, 10s. od.; and from an acre of land renting at £1, 1s. od., about £3, 12s. od. These are the figures as returned to me by the Collector, but the estimate seems rather a low one.

The Magistrate of Howrah makes a more liberal estimate. He reports that rice lands paying a rent at the rate of 9s. an acre generally yield an out-turn of from eleven to fifteen hundredweights of unhusked rice per acre, or five to seven *maunds* per *bighá*, besides

about two and a quarter *káhans* (or 2880 bundles) of straw, of an average total value of about £2. From an acre of superior land, renting at 18s., a fair average out-turn is considered to be from twenty-two to twenty-six hundredweights of unhusked rice, and three *káhans* (or 3840 bundles) of straw, of a total value of about £3, 8s. od. The price of produce varies, but paddy generally sells at from 2s. to 2s. 8d. a hundredweight, and straw at from 3s. to 5s. a *káhan*. In the above estimate, I have taken the average of these figures. In the higher portions of paddy land, on which the *áus* or autumn rice is chiefly grown, a second crop of *khesári* or other pulses is cultivated in the winter, and occasionally, but very seldom, a second crop of rice is also taken from the same field. Including all descriptions of crops grown on a small farm, the Magistrate is of opinion that the average total value of the produce of a cultivator's fields is about £3 an acre for ordinary land, and £4, 10s. od. an acre for superior land. The Magistrate of Howrah states that rice land, held at a permanently fixed rate of rent of 9s. an acre, sells at about £3 an acre; and superior rice land, renting at 18s., at about £4, 10s. od. *Lákhirdj*, or lands held rent-free, sell at the following rates:—Best paddy land, from £9 to £12 an acre; *soná*, or land on which *áus* rice and a second crop of pulses or oil-seeds is grown, from £9 to £15 an acre; *dángá*, or garden land, from £18 to £24 an acre; *mashud*, or grass land, from £3, 12s. od. to £5, 8s. od. an acre; and *do-char*, or alluvial lands, from £6 to £7, 10s. od. an acre. Rates of rent are high in Húglí District, and have considerably increased within the last twenty-five years. The Collector reports that first-class paddy land, which formerly rented for 15s. an acre, now pays from £1, 1s. od. to as much as £1, 16s. od. for very superior land; rents of second-class paddy land have risen from 12s. to 18s. an acre within the same period; of third-class paddy land, from 9s. to 13s. 6d. an acre; and of fourth-class paddy land, from 7s. 6d. to 10s. 6d. an acre. The rates of rent of the different classes of land will be given in minute detail on a subsequent page.

CONDITION OF THE PEASANTRY.—The Collector of Húglí reports that a farm of upwards of thirty-five acres would be considered a very large holding for a single husbandman; and anything below three and a half acres a very small one. A farm of about eight acres would be a fair-sized comfortable holding for the support of a cultivator and his family. There are, however, numerous cases of

small patches of land of less than one acre in extent, held by persons who, although termed *rayats* or husbandmen, generally hire themselves out as coolies or agricultural labourers, and only cultivate their small fields as an auxiliary means of subsistence. In Húglí proper, a cultivator with a family consisting of four or five members can make a comfortable living out of a small holding of five acres ; but the Collector reports that he would not be so well off as an ordinary retail shopkeeper, nor would he be able to live on the same scale as a man drawing 16s. a month in money wages. In the southern part of the District, however, where prices of grain and other agricultural produce are somewhat higher, the peasantry are more prosperous ; and the Magistrate of Howrah reports that a husbandman cultivating a small farm of this size would be considered better off than an ordinary retail shopkeeper, and would be enabled to live quite as well as a man in receipt of 16s. a month. Throughout the District, the poorer classes of cultivators are generally in debt to the *maháján* or village rice merchant and money-lender. The debt is principally incurred at sowing time to provide the means of cultivation for the year, but the amount with interest is usually cleared off after the ensuing harvest. Upon the whole, the peasantry of Húglí District may be regarded as fairly prosperous. An ordinary pair of bullocks can plough about five or six acres of land ; and a pair of superior oxen, about seven or eight acres.

There are many petty rent-paying proprietors recorded on the rent-roll of Húglí District, who own, occupy, and cultivate their hereditary lands without either a *zamíndár* or superior landholder above them, or a sub-tenant or labourer of any sort below them. Many holders of *lákhíráj*, or rent-free lands, do the same. The Collector reports that about one-fourth of the cultivated area of the District is held by numerous *lákhírájddárs*, under valid or invalid grants, and in some instances under no grants at all. The quantity of land in the possession of each *lákhírájddár* varies from one-third of an acre to sixty acres and upwards in extent. In the case of small and poor *lákhírájddárs*, they cultivate their lands themselves ; and the Collector estimates that there are upwards of two thousand such persons in the District. The other and wealthy *lákhírájddárs* either lease their lands out to under-tenants, or cultivate them by means of hired labour. I shall go further into the subject of these *lákhíráj* lands on a subsequent page, when treating of the land tenures of the District.

OPERATION OF THE LAND LAW.—Before the passing of Act x. of 1859 (the Land Law of Bengal), nearly all the lands in the District were supposed to be held by simple tenants at will, and the consent of the *samindár* regulated the continuance or termination of all *rayati* tenures, although of course self-interest naturally to a great extent prevented a landlord from ousting a good tenant. Since the passing of Act x., however, most of the lands are held by tenants claiming a right of occupancy, and the Collector is of opinion that not less than ninety per cent. of the cultivators of the District have acquired such a right of occupancy by upwards of twelve years' uninterrupted holding of the land. A large number of husbandmen, too, have established their right to hold their land in perpetuity without liability to enhancement of rent. Before the passing of Act x. of 1859, scarcely one per cent. of the cultivators of Húglí District held their lands with a right of occupancy, and at the same time were protected from enhancement of rent. The Collector reports, however, that since that Act was introduced, the Courts have declared, in about twenty per cent. of the cases which have come before them for decision, that the tenures were protected from enhancement, and were entitled to be held at a fixed rate of rent in perpetuity. There are, however, thousands of holdings in the District, the legal status of which has not been determined, and never will be determined until a dispute between the landlord and his tenant brings them before the Courts. The Collector is of opinion that about four per cent. of the cultivators in Húglí District hold their lands in perpetuity, and without liability to enhancement of rent.

THE DOMESTIC ANIMALS OF THE DISTRICT consist of cows, bullocks, buffaloes, a few horses, goats, sheep, pigs, cats, dogs, fowls, ducks, and pigeons. Oxen, and in a very few instances, buffaloes, are the only animals used in agriculture. Those reared for food, or for purposes of trade, are goats, sheep, pigs, ducks, and fowls. The price of an average cow is from £1, 10s. od. to £3; of a pair of oxen, £3; of a pair of buffaloes, £3, 12s. od.; a score of sheep, from £2, 10s. od. to £3; a score of kids six months old, about £2; and a score of full-grown pigs, from £5 to £8.

THE AGRICULTURAL IMPLEMENTS in common use are the following:—(1) *Nángal*, or plough. (2) *Koddáli*, or hoe, used for constructing the low earthen embankments which mark the boundary of each field; also for digging trenches for purposes of irrigation,

and for loosening and turning up the soil in case the field should become overgrown with weeds. (3) *Mai*, or harrow. This is an implement made of two long pieces of bamboo, with cross sticks of the same, in the shape of a ladder. It is dragged over the field after ploughing in order to break the clods, as well as to level the ground before sowing. The *mai* is drawn by bullocks, the driver standing upon it in order to give it weight. (4) *Bidd*, a large bamboo rake. After the young paddy plants have reached about six or eight inches in height, they are thinned wherever they are found to be growing too thickly, by the *bidd* being drawn over the field; a process which clears the field of weeds as well as thins the growing plants. (5) *Phor*, a weeding hook. (6) *Káste*, a sickle for reaping. (7) *Siuni*, or irrigating basket; a three-cornered wicker basket, worked by two men by means of four strings, for the purpose of baling out water from a tank or water-course, and throwing it on the field to be irrigated. The cattle and implements necessary for cultivating what is technically known as 'a plough' of land (which varies from five to seven or eight acres, according to the strength and capabilities of the plough oxen), with their cost, are the following:—1 pair of oxen, value about £3; 1 plough, 4s.; 2 sickles, 9d.; 2 hoes, 6d.; 1 harrow, 1s.; 1 rake, 6d.; and 1 irrigating basket, 2d. The total cost of implements and cattle represents a capital of from £3, 7s. od. to about £3, 10s. od.

WAGES have risen steadily of late years. Many of the well-to-do husbandmen employ a class of labourers called *krisháns* to assist them in their agricultural operations. These men receive money wages amounting to about £2, 8s. od. per annum, besides food and clothing; fifteen or twenty years ago they only received £1, 4s. od. a year. Another class of agricultural labourers, called *majurs*, who only work by the day, receive 6d. per diem, besides a light mid-day meal of parched rice; formerly they received only 3d. a day, with the meal. The Collector of Húglí returns the daily wages of ordinary labourers and artisans in 1861 and 1871 as under:—Coolies or porters received 2½d. a day wages in 1861; in 1871 their wages had increased to 6d. per diem. Blacksmiths' wages have also risen between 1861 and 1871 from 6d. to 9d. a day; bricklayers from 9d. to 1s.; carpenters from 9d. to 1s.; thatchers from 3d. to 6d.; and boatmen from 6d. to 9d.

PRICES OF FOOD GRAINS have risen in about the same proportion; and the Collector of Húglí returns the price of food grains in 1860,

as compared with those ruling in 1870, as follows:—In 1860, the best quality of unhusked rice sold at 3s. 4d. a hundredweight, and in 1870 at 4s. 1d. a hundredweight; best cleaned and husked rice sold at 6s. 9d. a hundredweight in 1860, and at 8s. 2d. a hundredweight in 1870. Common unhusked rice sold at 2s. 4d. a hundredweight in 1860, and at 2s. 8d. a hundredweight in 1870; common husked rice sold at 4s. 1d. a hundredweight in 1860, and at 5s. 5d. a hundredweight in 1870. Wheat sold at 4s. 9d. a hundredweight in 1860, and at 5s. 5d. a hundredweight in 1870. Indian corn sold at 4s. 1d. a hundredweight in 1860, and at 6s. a hundredweight in 1870. Barley sold at 4s. 1d. a hundredweight in 1860, and at 5s. 5d. a hundredweight in 1870.

The Magistrate of Howrah has furnished me with the following table, showing the ordinary rates of paddy and rice for each of the twenty-one years from 1850 to 1870, inclusive:—

PRICE OF PADDY AND RICE IN HOWRAH DISTRICT IN EACH YEAR FROM 1850 TO 1870, INCLUSIVE.

YEAR.	Price of Best Paddy per Cwt.		Price of Best Rice per Cwt.		Price of Common Paddy per Cwt.		Price of Common Rice per Cwt.					
	s.	d.	s.	d.	s.	d.	s.	d.				
1850	1	0 $\frac{1}{2}$	1	4 $\frac{1}{2}$	3	0 $\frac{1}{2}$	0	8 $\frac{1}{2}$	2	4 $\frac{1}{2}$	3	0 $\frac{1}{2}$
1851	1	0 $\frac{1}{2}$	1	4 $\frac{1}{2}$	3	0 $\frac{1}{2}$	0	8 $\frac{1}{2}$	2	8 $\frac{1}{2}$	3	0 $\frac{1}{2}$
1852	1	0 $\frac{1}{2}$	1	4 $\frac{1}{2}$	3	0 $\frac{1}{2}$	0	8 $\frac{1}{2}$	2	8 $\frac{1}{2}$	3	0 $\frac{1}{2}$
1853	1	4 $\frac{1}{2}$	1	8 $\frac{1}{2}$	3	5	1	0 $\frac{1}{2}$	2	8 $\frac{1}{2}$	3	5
1854	1	4 $\frac{1}{2}$	1	8 $\frac{1}{2}$	3	5	1	0 $\frac{1}{2}$	3	0 $\frac{1}{2}$	3	5
1855	1	8 $\frac{1}{2}$	2	0 $\frac{1}{2}$	3	9	1	0 $\frac{1}{2}$	3	0 $\frac{1}{2}$	3	5
1856	1	8 $\frac{1}{2}$	2	0 $\frac{1}{2}$	3	9	1	4 $\frac{1}{2}$	3	0 $\frac{1}{2}$	3	9
1857	1	8 $\frac{1}{2}$	2	4 $\frac{1}{2}$	4	1	1	4 $\frac{1}{2}$	3	5	4	1
1858	2	0 $\frac{1}{2}$	2	4 $\frac{1}{2}$	4	1	1	4 $\frac{1}{2}$	3	5	4	5
1859	2	4 $\frac{1}{2}$	2	8 $\frac{1}{2}$	4	5	2	0 $\frac{1}{2}$	3	9	5	1 $\frac{1}{2}$
1860	2	4 $\frac{1}{2}$	2	8 $\frac{1}{2}$	4	5	2	0 $\frac{1}{2}$	3	9	5	1 $\frac{1}{2}$
1861	2	4 $\frac{1}{2}$	2	8 $\frac{1}{2}$	4	5	2	0 $\frac{1}{2}$	3	9	5	1 $\frac{1}{2}$
1862	2	4 $\frac{1}{2}$	2	8 $\frac{1}{2}$	4	9 $\frac{1}{2}$	2	0 $\frac{1}{2}$	4	1	5	1 $\frac{1}{2}$
1863	3	0 $\frac{1}{2}$	3	5	5	5 $\frac{1}{2}$	2	4 $\frac{1}{2}$	4	9 $\frac{1}{2}$	5	9 $\frac{1}{2}$
1864	3	0 $\frac{1}{2}$	3	9	6	9 $\frac{1}{2}$	2	8 $\frac{1}{2}$	5	5	6	9 $\frac{1}{2}$
1865	4	1	4	0 $\frac{1}{2}$	8	2 $\frac{1}{2}$	3	5	6	9 $\frac{1}{2}$	8	2 $\frac{1}{2}$
1866	5	5	6	9 $\frac{1}{2}$	13	8	4	9 $\frac{1}{2}$	10	11	15	0 $\frac{1}{2}$
1867	3	0 $\frac{1}{2}$	3	9	6	9 $\frac{1}{2}$	2	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	6	9 $\frac{1}{2}$
1868	3	0 $\frac{1}{2}$	3	9	6	9 $\frac{1}{2}$	2	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	6	9 $\frac{1}{2}$
1869	3	0 $\frac{1}{2}$	3	9	6	9 $\frac{1}{2}$	2	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	6	9 $\frac{1}{2}$
1870	2	8 $\frac{1}{2}$	3	5	5	5 $\frac{1}{2}$	2	0 $\frac{1}{2}$	4	9 $\frac{1}{2}$	5	9 $\frac{1}{2}$

WEIGHTS AND MEASURES.—The weights and measures made use of in Húglí District are the following:—The standard for buying and selling in the bázár is based upon the *scr* of 80 *told* weight, each

tólá weighing 180 grains, this being the E. I. Company's standard *ser*. The weights and their equivalents are pretty fairly expressed thus:— $1\frac{1}{4}$ *tólás* of 180 grains troy = 1 *kánchhá* = 8 drams avoirdupois; 4 *kánchhá* = 1 *chhaták* = 2 oz.; 4 *chhaták* = 1 *podá*, or about 8 oz.; 4 *podá* = 1 *ser* of 80 *sikká* or *tólá* weight = 2.050 lbs.; 5 *ser* = 1 *pasurí*; 8 *pasurí* = 1 *man* or *maund* of 82 lbs. These weights are all based upon the Company's standard *ser* of 80 *tólás*; but at Bhadreswar, a large market town near Chandarnagar, a *ser* weighs $82\frac{5}{8}$ *tólás*. Indigo factories, too, have a standard weight of their own, a factory *ser* weighing only 72 *tólás*. The other denominations of weight are the same in name as those given above, their weight varying according to that of the *ser*. Grain is measured generally according to the following standard:—5 *chhaták* = 1 *kunkí*, or $10\frac{1}{2}$ oz. avoirdupois; 4 *kunkís* = 1 *rek*, or 2 lbs. 9 oz.; 4 *rek* = 1 *páli*, or 10 lbs. 4 oz.; 20 *páli* = 1 *sali*, or 1 cwt. 3 qrs. 9 lbs.; 16 *sali* = 1 *káhan* or 40 maunds, equal to $29\frac{1}{2}$ hundredweights avoirdupois. Another measure of corn and pulses current in the rural parts of the District is as follows:—4 *kunkí* = 1 *káthá*; 2 *káthá* = 1 *árhí*; 20 *árhí* = 1 *bish*, weighing 1 maund $17\frac{1}{2}$ sers, or 117 pounds avoirdupois. The *kunkí*, which forms the basis of the measure, is a small wicker basket, the weight of the contents of which amounts to twelve ounces avoirdupois. Gold and silver weight:—4 *panka* = 1 *dhán*, or $\frac{9}{20}$ of a grain troy; 4 *dhán* = 1 *rati*, or $1\frac{1}{2}$ grains; $6\frac{1}{4}$ *rati* = 1 *áná*, or $11\frac{1}{4}$ grains; 8 *rati* = 1 *máshá*, or $14\frac{2}{3}$ grains; 100 *rati* or 16 *áná* = 1 *tólá* or *sikká* of 180 grains troy; $106\frac{1}{4}$ *rati* or 17 *áná* = 1 *mohar*, or $191\frac{1}{4}$ grains. Apothecaries' weight:—4 *jab* = 1 *rati*, or 9 grains troy weight; 5 *rati* = 1 *dhán*, or 45 grains; 2 *dhán* = 1 *máshá*, or 90 grains; 2 *máshá* = 1 *tólá* of 180 grains. Liquid measure:—5 *sikká* weight = 1 *chhaták*, or $\frac{1}{2}$ of a pint; 4 *chhaták* = 1 *podá*, or $\frac{2}{3}$ of a pint; 4 *podá* = 1 *ser*, or $1\frac{1}{2}$ quarts; 40 *ser* = 1 *maund*, or 30 gallons. Cloth measure:—5 *jab* = 1 *anguli*, or thumb breadth; 5 *anguli* = 1 *girá*; 8 *girá* = 1 *háth*, or cubit of 18 inches; 2 *háth* = 1 *gaj*, or yard. Land is measured according to the following standard:—27 *jab* = 1 *anguli*, or thumb breadth; 4 *anguli* = 1 *mushti*, or 3 inches; 3 *mushti* = 1 *bigat*, or 9 inches; 2 *bigat* = 1 *háth*, or cubit of 18 inches; 5 *háth* in length by 4 in width = 1 *chhaták*, or 45 square feet; 16 *chhaták* = 1 *káthá*, or 720 square feet; 20 *káthá* = 1 *bighá*, or 14,400 square feet. The current measures of time are as follow:—60 *pal* = 1 *ghari*, or 24 minutes; $7\frac{1}{2}$ *ghari* = 1 *prahar*, or 3 hours; 8 *prahar* = 1 *din*, or day

and night of 24 hours; 30 *din* or days = 1 *más* or month; 12 *más* = 1 *batsár*, or year of 365 days. Measures of distance are computed as follow:—3 *jab* = 1 *anguli*, or $\frac{3}{4}$ of an inch; 4 *anguli* = 1 *mushtí*, or 3 inches; 3 *mushtí* = 1 *bigat*, or 9 inches; 2 *bigat* = 1 *háth*, or cubit of 18 inches; 4 *háth* = 1 *dhanu*, or six feet; 2000 *dhanu* = 1 *kos* or *kros* = 4000 yards, or about $2\frac{1}{4}$ miles.

AGRICULTURAL DAY LABOURERS.—There is a large class of day labourers in the District, neither possessing nor renting any land of their own, with the exception of the little patches on which their huts are built. These generally hire themselves out as agricultural labourers, to assist in cultivating the fields of their more prosperous neighbours. A very few of them hold little patches of land surrounding their homesteads, which in spare time they cultivate as an auxiliary means of subsistence. Agricultural labourers who are paid by the month are called *krisháns*, and ordinary agricultural day labourers, *majurs*. Neither *krisháns* nor *majurs* are paid by a share of the produce in this District; but a practice is said to be daily gaining ground, by which the labourer agrees to pay the rent of a *bighá* or two of his employer's ground, and to appropriate the produce to himself, in addition to the money wages he receives. The usual rate of wages for *krisháns* is £2, 8s. od. a year, with food and clothing; and for day labourers, $3\frac{1}{2}$ d. per diem, together with a mid-day meal of parched rice. Women are not employed in outdoor agricultural operations, but, after the crops have been reaped, the women assist in the labour of threshing, and almost exclusively perform the winnowing operations. Children above twelve years of age take part in the labour of the field, and those below that age herd the cattle, which they drive to the fields for pasturage. The Collector of Húglí reports that there is now a tendency towards the growth of a distinct class of day labourers for other than agricultural purposes, owing to the want of spare land and the requirements of the railway and manufactories.

SPARE LAND.—In Howrah there is very little or no spare land available, and the terms of the tenures are reported to be unfavourable to the cultivators. In Húglí proper, too, there is but little spare land, although between 1865 and 1870 large areas here and there were temporarily allowed to fall out of cultivation, on account of the heavy mortality among the villagers, caused by the ravages of the epidemic fever. These lands, however, are taken up and rented as soon as the condition of the village improves.

LAND TENURES.—The following paragraphs regarding the land tenures of the District, their number, assessed revenue, value, etc., are condensed from a report by the Collector to the Government of Bengal, dated the 12th June 1873. These tenures are divided into five classes, viz., (1) estates or tenures paying revenue to the State; (2) intermediate tenures paying rent to the *zamindárs*; (3) ordinary cultivating tenures; (4) rent-free tenures; and (5) service tenures.

The first class, viz. estates or tenures paying revenue direct to the State, consist of *zamindáris*; estates under Government management; and *dimá* estates. These form the estates from which the entire Government land revenue of the District is realised. Excluding estates transferred to Bardwán and Midnapur Districts, there are in all 3537 revenue-paying estates of all kinds in Húglí, paying a total revenue in 1873 of £128,062 to the State. The aggregate annual value of these estates is estimated at £279,118, leaving a profit to the proprietors, after paying the Government demand, of £151,055; average annual profit of each estate, £42, 14s. od.; average profit per pound sterling of land revenue, £1, 3s. 7½d. A detailed list of the different classes of estates paying revenue direct to Government, showing their number, Government assessment, profit, etc., will be found in the Administrative Section of this Statistical Account, when I come to treat of the land revenue of the District.

INTERMEDIATE TENURES.—The Collector's report returns these as under:—(1) *Patní*. A *patní* tenure, or *táluk*, as it is called, is defined in Regulation viii. of 1819 to be one created by the *zamindárs*, and held at a rent fixed in perpetuity, the tenant furnishing collateral security for the rent, and binding himself to certain conditions regarding the sale of the tenure for arrears, and also to the sale of his other property, in case the proceeds of the sale of the tenure are not sufficient to pay off the entire sum due. The records show that there are 681 *patní* tenures in the District, paying a total rent to the *zamindárs* of £60,882, 12s. od., and valued at £97,053, 6s. od., leaving a profit of £36,170, 14s. od.; average profit from each tenure, £53, 2s. 3d.; average profit for each pound sterling of rent, 11s. 10½d. (2) *Dar-patní* is an under-tenure created by a *patnidár*, to whom the holder of the tenure pays the rent. It is similar to a *patní* tenure in all respects. The District records return the number of these tenures in Húglí at

99, paying a total rent of £7887 to the superior *patnidárs*, and valued at £11,528, 12s. od., showing a profit of £3641, 12s. od.; average profit of each tenure, £36, 15s. 7½d.; average profit per pound sterling of rent, 9s. 2d. (3) *Se-patní* is a *patní* tenure of the third degree in the link, and is created by a *dar-patnidár*. The records only show seven of this class of tenures in the District, paying a total rent of £433, 14s. od., the average annual value of the land being returned at £598, showing a profit of £164, 6s. od. after paying the rent; average profit of each tenure, £23, 9s. 5d.; average profit per pound sterling of rent, 7s. 6d. (4) *Mukarrari ijára*. These are the most lucrative of the sub-tenures in the District. The records give the number of these tenures in Húglí at 29, paying a total rent of £703, the annual value of the tenures being returned at £1766, 6s. od., showing a profit of £1063, 6s. od.; average profit of each tenure, £36, 13s. 3d.; average profit per pound sterling of rent, £1, 10s. 2½d. The Collector states that this class of tenure has been found to be generally as profitable as *patní* tenures, and in some cases even more so. A *mukarrari ijára* is granted at a fixed rate of rent for a valuable consideration. The tenure is not liable to sale in the same manner that *patní* tenures are sold, and the rents are recoverable in the Civil Court in the usual manner. (5) *Ijára*, or lease. An *ijára* is a lease held for a limited term, and generally yields little more than the collection charges and a very small margin for profit, unless it is a *mukarrari* one, or a *sar peshgi* or usufructuary lease granted for repayment of loans, by collections of rents from the estate or *táluk* so let out. The records disclose 174 *ijára* tenures in Húglí, paying a total rent of £26,172, 2s. od., the annual value being returned at £30,607, 12s. od., showing a profit of £4435, 10s. od.; average profit of each tenure, £25, 9s. 9d.; average profit per pound sterling of rent, 3s. 5¼d. The greater number of these lease tenures are found in the Mandalghát estate, belonging to Bábu Hirálál Sil and Brothers in Calcutta, and are farmed out year by year to the highest bidders. (6) *Dar-ijára*, a sub-lease or lease of the second degree, and subordinate to the foregoing. The records only show 6 of this class of tenures in Húglí, paying a total rent of £354, 4s. od., the value being returned at £532, 6s. od., leaving a profit of £178, 2s. od. to the holders; average profit of each tenure, £29, 13s. 7½d.; average profit per pound sterling of rent, 10s. (7) Other intermediate holdings having subordinate tenures under them. The records return 209 of these

tenures, paying a total rent of £3301, 12s. od., the aggregate annual value of the land being estimated at £4860, 8s. od., leaving a profit of £1558, 16s. od. to the holder; average profit of each tenure, £7, 9s. 1½d.; average profit per pound sterling of rent, 9s. 4½d. The grand total of all the above classes of intermediate tenures is 1205, paying an aggregate rent to their immediate superior landlords of £99,734, 4s. od. The total rental of the land comprised in these tenures is returned at £146,946, 10s. od., leaving a profit of £47,212, 6s. od. to the holders; average profit of each tenure, £39, 3s. 7d.; average profit per pound sterling of rent, nearly ten shillings.

CULTIVATING TENURES.—The two principal divisions of land held by actual husbandmen are termed *rayatí* and *khámár* lands. The rent for the *rayatí* lands is paid in cash according to rates prevalent for lands of similar descriptions or quality in the *parganá*. These rates vary at different places, and in some places there are special and different rates in several localities within the same *parganá*. The rent for the *khámár* lands is paid in kind, the general rate of division being that half the produce is given to the landlord, and the other half goes to the cultivator. Both these general classes of lands are cultivated by *rayats*, divided into two principal classes, termed *khúúkáshí* or resident *rayats*, who cultivate their hereditary lands in the villages where they reside; and *páikáshí* or non-resident *rayats*, who cultivate land in villages in which they do not reside. These two classes are again subdivided into many, of which the following are the principal :—(1) *Mukarrari rayat*, a *mukarrari* holder, who has a hereditary and fixed cultivating tenure, and whose rent is not liable to enhancement; such a tenure is transferable. (2) *Maurúsi rayats*; also holders of an hereditary and a transferable tenure at fixed rates of rent. (3) Occupancy *rayats* are cultivators who have acquired a right of occupancy in their lands by being in uninterrupted possession for more than twelve years. This class has been fostered by the operation of the law of landlord and tenant (Act x. of 1859). A right of occupancy is heritable, but, according to the rulings of the High Court, not necessarily transferable at the will of the holder. (4) *Míddí rayats*, as indicated by their name, are cultivators who have no permanent holdings, but are generally temporary cultivators year by year, or for a short term. (5) *Korfá rayats* are simply tenants at will, generally holding their lands under one of the classes mentioned above. (6) *Bhági jotdárs*

or *rayats*. In the case of paddy lands, these *rayats* cultivate the lands at their own expense and by their own labour, and divide the produce by sharing it equally with the party who pays the rent for the land. In the case of *soná* lands yielding two crops, the *bhúgí rayat* cultivates the land and pays half of certain incidental expenses, and receives half the produce. If he has to pay the whole of the expenses, he is entitled to two-thirds of the produce, the remaining one-third being received by the party who pays the rent of the land. (7) *Dhán thiká rayats* are those who hold no land of their own, but cultivate the land of others, agreeing to pay them a certain quantity of paddy for each *bighá*, irrespective of any losses which may accrue by calamity of season, non-cultivation of the whole area taken by them, etc.

The District records furnish no data by which to estimate the number of cultivating *rayats* of each class in the District, or the proportion which the rent paid by them bears to the yield of the crops, and other items constituting the annual value of the land. The materials show the number of cultivators' holdings, etc., of all classes, and give the following details respecting them. The small number of them paying a rental of upwards of £10 per annum is a striking instance of the extent to which subdivision of property has taken place in Huglí District. In the Government revenue-paying estates or *samíndáris*, there are only 377 holdings the tenants of which pay a rental of upwards of £10 a year to their superior landlords; the total rent payable from these 377 holdings amounts to £5664, 10s. od., the average rental of each holding being returned at £15, os. 6d. The small holdings paying a less rental than £10 a year included within the Government revenue-paying estates are returned at 305,700, paying a rent to the superior landlord of £243,196, the average rental of each holding being returned at 15s. 10½d. Besides the cultivators' holdings included in the revenue-paying *samíndáris*, a large number are comprised within the *lákhiráj* or revenue free estates. Of these, 12 are returned as paying a rent of upwards of £10 a year to the *lákhirájdar*, the total amount of rent paid being £151, 6s. od., the average rent of each holding being returned at £14, os. 9d. Cultivators' holdings in *lákhiráj* estates paying a less rent than £10 a year are returned at 16,934, paying a total rent of £9307, 6s. od., the average rent of each holding being set down at 10s. 11d. Taking revenue-paying and *lákhiráj* estates together, the total number of cultivators' holdings

in Húglí District is returned at 323,023, of which only 389 pay a rent of upwards of £10 a year. The total rent payable to the superior landlords of these cultivators' holdings is returned at £258,319, 2s. od.

LAKHIRAJ OR RENT-FREE TENURES.—The *lákhiráj* or rent-free estates in Húglí District are divided in the records into six classes :— (1) Confirmed revenue free estates above 10 acres in extent. There are 164 estates of this description in the District, of an estimated aggregate annual value of £10,883, 4s. od., the average value of each estate being £66, 7s. 1½d. (2) Confirmed revenue free estates below 10 acres in extent. These number 83 in the District, of an aggregate annual value of £60, 2s. od., the average value of each estate being 14s. 6d. (3) Petty redeemed estates. There are only 27 petty redeemed estates in the District held free of rent. These have been valued at £18 *per annum*; average value, 13s. 4d. for each estate. (4) Other rent-free tenures of the value of £10 a year and upwards; 129 in number; aggregate annual value estimated at £2938, 4s. od., or an average annual value for each estate of £22, 15s. 6d. (5) Rent-free tenures valued between 10s. and £10 a year; 12,670 in number; aggregate annual value estimated at £17,908, 16s. od., or an average annual value for each estate of £1, 8s. 3d. (6) Small rent-free tenures valued at less than 10s. a year; 18,279 in number; aggregate annual value estimated at £3476, 4s. od., or an average annual value for each estate of 3s. 9d. The grand total of the foregoing six classes gives 31,352 estates, the aggregate annual value of which is returned at £35,284, 10s. od., or an average annual value for each estate of £1, 2s. 6d. The revenue free estates and tenures actually returned form, however, but a small fraction of the immense area of rent-free lands in this District. It is estimated, and the Collector believes the estimate to be below rather than above the mark, that nearly one-fourth of the whole cultivated area of the District is held free of rent.

The following are the varieties of rent-free lands found in Húglí District, as far as the Collector has been able to ascertain them :—

(1) *Lákhiráj*, or rent-free land granted as a reward for services performed, or for some other special purpose. (2) *Debottar*, or lands granted for the worship of various Hindu gods, and vested in *sebáits* or trustees, who have no power to alienate such lands away from their sacred uses. (3) *Brahmottar*, or lands granted for the

support of learned and pious Bráhmans. These are liable to be alienated. (4) *Mahattrán*, or lands assigned by *zamindárs* for the protection of religious and learned men, or of poor men other than Bráhmans. These lands are liable to be alienated. (5) *Vaishnavottar*, or lands granted for the support of Vaishnavs; these also are liable to alienation. (6) *Ptrottar*, or lands resembling the *debottar* lands of the Hindus, being grants made by Muhammadans for the maintenance of *pírs* or Musalmán saints. These lands are not alienable. (7) *Wakf*, or lands granted by religious and rich Muhammadans for the maintenance of mosques or *masjids*, and for the purpose of feeding *fakírs* or religious mendicants; not alienable. (8) *Chirághí*, or lands granted for defraying the charges of providing lights at the tombs of Muhammadan saints; not alienable. (9) *Nazrát*, or presentation lands for the maintenance of Muhammadan saints or holy men, and for defraying the expenses of festivals; not alienable. (10) *Khayráti*, or lands granted solely for the purpose of bestowing general alms on the poor; not alienable. (11) *Khándbári*, or lands granted rent-free as sites of homesteads. The Collector states that there may be other minor or unimportant classes of rent-free tenures.

SERVICE TENURES.—These form the fifth class of the land tenures of the District. The only public service tenures are those held as relics of police services performed under a former administration, or in return for actual service performed at the present day. The *pháridárs* are remnants of an ancient police organization, and many of them still perform police duties. There are 5821 *pháridári* service tenures in the District, comprising an area of 15,715 acres, and their yearly value is stated by the Collector to be moderately estimated at £9429, 8s. od., or 12s. an acre. On an average, each tenure comprises $2\frac{2}{3}$ acres of land, the annual value of which would be about £1, 12s. od. There are also 1307 *chaukidári* tenures in the District held by rural policemen, comprising an area of 3713 acres; their yearly value at 12s. an acre being given at £2228. The average area of each tenure is $2\frac{3}{4}$ acres, the annual value of which amounts to about £1, 14s. od. No other public service tenures are entered on the District records, but there are a number of small private service tenures held by *purohíts*, or village priests; *nápíts*, or barbers; *kámárs*, or blacksmiths; *máls*, or gardeners and makers of garlands for decorating idols; and *dhobás*, or washermen. These are small grants of rent-free lands made by *zamindárs* for the

VOL. IV. z

maintenance of priests and servants. No record exists for estimating the number and area of these holdings.

RATES OF RENT.—The following are the special varieties of land in the District, with their average rates of rent:—(1) *Bástu*, or homestead land, present rate of rent, £3 per acre; (2) *ud-bástu*, lands surrounding the homestead, principally used as a garden, or for raising the more valuable descriptions of crops, rent £2, 5s. od. an acre; (3) *bászár*, or market land, rent from £1, 10s. od. to £2, 8s. od. an acre; (4) *bágát*, or garden land, rent from £1, 10s. od. to £2, 8s. od. an acre; (5) *pukur*, land occupied by ponds, tanks, etc., rent 12s. to £1, 10s. od. an acre. These tanks and ponds are of very small size, and are situated adjacent to fields which require plentiful irrigation.

The agricultural lands are divided into two grand classes,—*soná* and *sáli*. *Aus* paddy, potatoes, pulses, oil-seeds, and sugar-cane are cultivated on *soná* lands, which produce two crops in the year,—an autumn crop of *áus* rice, and a winter crop of pulses or oil-seeds. *Aman* paddy, *boro* paddy, and jute are the crops principally cultivated on *sáli* land. Both descriptions of land are subdivided into four classes, with reference to their qualities and the rates of rent they command. These subdivisions, with their present rates of rent as compared with those ruling twenty years ago, and at the time of the Permanent Settlement, are returned by the Collector as follows:—(1) *Soná áwal*, or first-class two-crop land, present rate of rent from £1, 4s. od. to £1, 16s. od. an acre; ordinary rent twenty years ago, 15s. an acre; rent at or about the time of the Permanent Settlement at the close of the last century, 6s. an acre. (2) *Soná doem*, or second-class land, present rent 18s. an acre; rent twenty years ago, 12s. an acre; rent about the time of the Permanent Settlement, 4s. 6d. an acre. (3) *Soná siyam* or third-class land, present rent 13s. 6d. an acre; rent twenty years ago, 9s. an acre; rent about the time of the Permanent Settlement, 3s. an acre. (4) *Soná chaharam*, or fourth-class land, present rent 10s. 6d. an acre; rent twenty years ago, 6s. an acre; rent about the time of the Permanent Settlement, 2s. 3d. an acre. (5) *Sáli áwal*, or first-class *sáli* land cultivated with *áman* or *boro* rice or jute, present rate of rent £1, 4s. od. an acre; rent twenty years ago, 15s. an acre; rent about the time of the Permanent Settlement, 6s. an acre. (6) *Sáli doem*, present rent 18s. an acre; rent twenty years ago, 12s. an acre; rent about the time of the

Permanent Settlement, 4s. 6d. an acre. (7) *Sáli siyam*, present rent 12s. an acre; rent twenty years ago, 9s. an acre; rent about the time of the Permanent Settlement, 3s. an acre. (8) *Sáli chaharam*, present rent 9s. an acre; rent twenty years ago, 6s. an acre; rent about the time of the Permanent Settlement, 2s. 3d. an acre. (9) Mulberry and tobacco lands, £1, 16s. od. to £3 an acre. (10) Sugar-cane lands, from £1, 4s. od. to £2, 8s. od. an acre. (11) *Atá*, or land growing *báblá* and palm-trees, 3s. 9d. to 6s. an acre. (12) *Mashuá*, or grass land, from 3s. to 3s. 9d. an acre. (13) *Dhásá*, or marshy land with reeds, 3s. an acre. These are the present rates. I am unable to give any former rates of rent for these last five descriptions of land.

The above rates are those returned to me by the Collector in 1870, but a subsequent return was submitted to the Government of Bengal in August 1873, showing the prevailing rates paid by cultivators for the ordinary description of land on which the commonest crops are raised. The land is classified rather more in detail than as given above, and I reproduce from it the following figures, showing the minimum, maximum, and ordinary rates of rent for the Subdivisions of Húglí, Serampur, and Howrah:—

(1) High rice land for early rice—Húglí Subdivision: minimum rent, 15s. an acre; maximum rent, £1, 4s. od. an acre; ordinary rent, £1, 1s. od. an acre. Serampur Subdivision: minimum rent, 12s.; maximum rent, £1, 4s. od.; and ordinary rent, 18s. an acre. Howrah Subdivision: minimum rent, 15s.; maximum rent, 18s.; and ordinary rent, 15s. an acre. (2) Low rice land for late rice—Húglí Subdivision: first quality, minimum rent, 12s.; maximum rent, £1, 7s. od.; and ordinary rent, 18s. an acre. Serampur Subdivision: minimum rent, 18s.; maximum rent, £1, 4s. od.; and ordinary rent, £1, 4s. od. an acre. Howrah Subdivision: minimum rent, 15s.; maximum rent, £1, 4s. od.; and ordinary rent, 18s. an acre. (3) Low rice land for late rice, second quality—Húglí Subdivision: minimum rent, 6s.; maximum rent, 18s.; and ordinary rent, 15s. an acre. Serampur Subdivision: minimum rent, 12s.; maximum rent, 18s.; and ordinary rent, 15s. an acre. Howrah Subdivision: minimum rent, 9s.; maximum rent, 18s.; and ordinary rent, 15s. an acre. (4) Lands on which pulses are grown—Húglí Subdivision: minimum rent, 6s.; maximum rent, 9s.; and ordinary rent, 7s. 6d. an acre. Serampur Subdivision: minimum rent, 9s.; maximum rent, 12s.; and ordinary rent, 12s.

an acre. Howrah Subdivision: minimum rent, 9s.; maximum rent, 13s. 6d.; and ordinary rent, 12s. an acre. (5) Sugar-cane lands—Húglí Subdivision: minimum rent, 18s.; maximum rent, £1, 16s. od.; and ordinary rent, £1, 7s. od. an acre. Serampur Subdivision: minimum rent, £1, 4s. od.; maximum rent, £2, 2s. od.; and ordinary rent, £1, 10s. od. an acre. (6) Jute lands—Húglí Subdivision: minimum rent, 18s.; maximum rent, £1, 4s. od.; ordinary rent, £1, 1s. od. an acre. Serampur Subdivision: minimum rent, 12s.; maximum rent, £1, 4s. od.; ordinary rent, 18s. an acre. Howrah Subdivision: minimum rent, 15s.; maximum rent, 18s.; ordinary rent, 15s. an acre. (7) Potato land—Húglí Subdivision: minimum rent, 18s.; maximum rent, £2, 2s. od.; ordinary rent, £1, 10s. od. Serampur Subdivision: minimum rent, £1, 4s. od.; maximum rent, £2, 2s. od.; ordinary rent, £1, 10s. od. an acre. Howrah Subdivision: no potatoes grown here. (8) High rice lands for *aus* rice, succeeded by a second crop of pulses—Húglí Subdivision: minimum rent, £1, 4s. od.; maximum rent, £1, 16s. od.; ordinary rent, £1, 10s. od. an acre. Serampur Subdivision: minimum rent, 18s.; maximum rent, £1, 10s. od.; ordinary rent, £1, 4s. od. an acre. Howrah Subdivision: minimum rent, £1, 1s. od.; maximum rent, £1, 10s. od.; ordinary rent, £1, 4s. od. an acre. (9) High lands for *aus* rice, succeeded by other crops—Húglí Subdivision: minimum rent, £1, 4s. od.; maximum rent, £1, 16s. od.; ordinary rent, £1, 10s. od. an acre. Serampur Subdivision: minimum rent, £1, 4s. od.; maximum rent, £1, 16s. od.; ordinary rent, £1, 10s. od. an acre. Howrah Subdivision: potato, the only other crop, is not cultivated in this Subdivision. (10) Garden land—Húglí Subdivision: minimum rent, 18s.; maximum rent, £1, 16s. od.; ordinary rent, £1, 4s. od. an acre. Serampur Subdivision: minimum rent, £1, 4s. od.; maximum rent, £2, 8s. od.; ordinary rent, £1, 16s. od. an acre. Howrah Subdivision: minimum rent, £1, 1s. od.; maximum rent, £2, 8s. od.; ordinary rent, £1, 10s. od. an acre.

ENHANCEMENT OF RENT.—Rates of rent have risen considerably in Húglí District of late years. The Collector states in his report to me, that before Act x. of 1859 came into operation, the *zamindárs*, confident of the right they possessed to enhance the rents of their tenants at any time they pleased, did not use that power to anything like the extent they do now. At present, enhancements are made at regular intervals by the *zamindárs*, in

the fear that a few years' negligence or forbearance may deprive them of the power, and give the tenant a right to hold his land under the Occupancy Rules. Formerly, after a general Settlement of the lands of a village had been made with the cultivators according to the rates prevailing in the *parganá* within which it was situated, the *zamindár* remained quiet for at least twenty years, if not for his lifetime, when a second Settlement was made by himself or his successor. At the present day, landlords lose no opportunity of raising the rents of their tenants by every means in their power, through fear of giving the latter a chance of acquiring the right to hold their land at Occupancy Rates.

MANURES.—Except in fields newly brought under cultivation, manure is not generally used for rice crops. It is largely employed, however, in the cultivation of *pán*, potatoes, and sugar-cane, and for several cold-weather crops, such as mustard, pulses, etc. Cow-dung, ashes, and mud from the bottom of tanks are used as manures for rice-fields; and oilcake, of castor and mustard seed, in addition, for *pán* gardens, and for sugar-cane and potato crops. The quantity of the different kinds of manure required for an acre of land, and the cost expended on it, are returned by the Collector as under:—Cow-dung, used every second year, from eleven to thirteen hundredweights, at a cost of about 3s.; ashes, from nine to eleven hundredweights every third year, at a cost of about 3s. 9d.; earth taken from old mud walls, twenty to twenty-two hundredweights every third year, at a cost of about 1s. 8d.; *pánk*, or black mud mixed with putrid vegetable matter, gathered from the bottom and sides of stagnant tanks and ponds, about thirty-five hundredweights every third year, costing about 1s. 8d.; castor-seed oilcake, about six and a half hundredweights for every crop, costing about £1, 1s. od.; mustard-seed oilcake, about six and a half hundredweights for every crop, costing about 18s.

IRRIGATION.—Potato and sugar-cane crops require to be well irrigated, in order to secure a fair return. *Pán* gardens are also plentifully irrigated, and to a less extent land growing mustard and *báigun*. Rice and other ordinary crops are only irrigated when there is a scanty rainfall. There are no irrigation wells in Húglí District, and the water required for the purpose is taken from the nearest river, *khál*, or tank. The cost of labour for irrigating an acre of paddy land is estimated at from 3s. 3d. to 3s. 9d.; and for sugar-cane land, about Rs. 18 or £1, 16s. od. Where water has to be

brought from a distance for the purposes of irrigation, it involves an extra cost of about 1s. 6d. an acre for paddy land, and 6s. an acre for sugar-cane lands. The Ulubáriá and Midnapur Canal affords facilities for irrigation in the Howrah portion of the District, but has not yet been largely taken advantage of by the cultivators.

ROTATION OF CROPS.—The advantages of allowing land to lie fallow and of rotation of crops are fully understood by the husbandmen of Húglí, but neither system is practised in the strict sense of the terms. Lands are not allowed to remain fallow for a year or two, as in some other Districts, but only for a few months. Thus, when the *ásus* or early rice is reaped, the fields are allowed to remain fallow for six months or so, in order that they may produce a good crop of potatoes later in the year. As regards rotation of crops, it is very partially practised, and only to the extent of alternating the cultivation of potatoes with that of sugar-cane or jute. Rotation of crops is never practised on rice lands, except occasionally on high-lying fields cultivated with *ásus*, which the husbandman, when the soil has become exhausted, plants with *arhar* or with *báblá* trees. In the Howrah portion of the District, the Magistrate reports that the land is never allowed to remain fallow, and that no system of rotation of crops is practised.

NATURAL CALAMITIES: BLIGHTS.—The District is liable to natural calamities, such as blights, floods, and droughts, but, with the exception of the drought of 1865, has not suffered to any serious extent of late years. Paddy crops are subject to blight caused by a species of worm called *sánki*, and also by another species called *bhempo*. These destroy the pith of the plants when young, which gradually decay and dry up. Paddy crops are also subject to another description of blight called *kádúmárá*, a term applied to a blight of minute vegetable (?) growth, which surrounds the lower part of the plant and destroys it in the course of a few days. Flights of locusts are of very rare occurrence, and do not make their appearance more than about once in twenty years; they generally travel from a north-easterly direction, and injure the crops to a certain extent, but seldom or never cause anything like a general destruction. Sugar-cane is also subject to blight, supposed to be caused by worms. The cultivators call the two kinds of sugar-cane blight *sarámárá*, or withered, and *dhasámárá*, or rotten; when attacked by these blights, which destroy the juice of the cane, the plants soon dry up and wither. A general destruction of the crop

of the 'Bombay sugar-cane' by blight occurred about fifteen years ago. Potatoes are subject to a description of blight called *máruá*. These small insects generally infest the crops when the atmosphere has been cloudy for several days in succession, but they quickly disappear on the return of sunshiny weather. They destroy the plants by eating the leaves, and are of such minute size as to be hardly perceptible to the eye, except by the marks they leave behind them. A general blight of the harvest is unknown in Húglí District, but almost every year one crop or other is afflicted in some particular locality, while other places remain unaffected. The only instance of any crop being generally affected throughout the entire District was that of the blight of the 'Bombay sugar-cane,' which occurred about fifteen years ago. Since that time very little of this valuable sugar-cane crop has been cultivated in the District. On the occurrence of a blight, the cultivators are entirely helpless, and do not attempt any remedy. In the Howrah portion of the District, no blight has occurred within the memory of the present generation on such a scale as to affect the general harvest.

FLOODS.—Since the construction of the railway, which acts as an embankment, and the strong embankment along the eastern bank of the Dámodar (the western embankment being destroyed by order of Government), the District has not been subjected to any general floods caused by the rising of the rivers. Colonel Gastrell, in his Statistical and Geographical Report of Bánkurá District, states that the banks of the lower portion of the Dámodar river within Húglí District were formerly frequently inundated. 'To protect their fields and crops, many *samíndárs* erected embankments; but each did so to suit his own wants only, and quite irrespective of any benefit or injury that might accrue to his neighbour. Subsequently, Government, seeing the evil of this, put all the embankments under the charge of its own officers. But finding they gave endless trouble, and more than doubt having arisen as to their ultimate good, Government in 1855 decided on keeping up those on the east bank of the river only, and destroying in part those on the west bank. By this means it was calculated that less injury would happen to the *samíndárs* and others, by allowing the water to flow more gradually and quietly over the land, as it would do if left to itself, than would be the case when, through accident or an unusually high flood, the water might (as it often did) burst the embankments, and, rushing down in immense volume, carry immediate destruction to all within

its reach.' Serious floods are now of very rare occurrence in Húglí proper. Large fields here and there are subject to inundation by the accumulation of rain-water or the sudden rising of a river, but such floods do not affect the general agricultural prospects of the District. The only recent case reported by the Collector in which anything like a general flood occurred in Húglí District, was in 1867, caused by excessive rainfall. Before the embankments along the east or left bank of the Dámodar were constructed, the western portion of Húglí District was extensively inundated almost every fifth or sixth year. General inundations occurred in 1833 and 1834, occasioned partly by excessive rainfall, and partly by the overflowing of the rivers. The principal protective works against inundation in Húglí District are the embankments along the eastern bank of the Dámodar, on both banks of the Sankhá, and on the east bank of the Rúpnáráyan, all constructed by Government. Other embankments on a large scale are not needed in Húglí District; but whenever any smaller ones are required, besides those at present in existence, they are made by the *samindárs*; and the Collector reports that there are at present a large number of small *samindári* embankments in the District.

The Howrah portion of the District is subject to more frequent floods than Húglí proper. The Magistrate reports that this calamity has occurred three times within the memory of the present generation, viz., in 1823, 1833, and 1864, occasioned by extraordinary risings of the sea, and of the rivers within the District. On none of these occasions, however, was any considerable damage done to the crops. The Magistrate reports that it is almost impossible to prevent such floods; but, on the other hand, the damage done by them is not often of a serious nature, and no special protective works against floods are needed. In former years, a considerable portion of the District situated between the Dámodar and Rúpnáráyan, and along the banks of those rivers, was flooded almost annually; but strong Government embankments have now been constructed, under the shelter of which the crops are cultivated. Occasionally these embankments give way, and considerable damage is done to the crops within reach of the flood. This, however, is not sufficient to affect the whole harvest, or the general prosperity of the District.

DROUGHTS, when they occur in Húglí District, are caused by deficiency of rainfall, and not by the failure of the rivers to bring

down their usual supply of water. The husbandmen depend almost solely on rain-water for the growth of their crops, and the condition of the rivers does not very seriously affect the prospects of the harvest. General droughts occurred in Húglí District within the memory of the present generation, in 1840, 1851, and 1865. On many occasions, partial droughts have occurred in the District, affecting only certain localities; or as in 1870, affecting the whole District to a partial extent. In years of drought, the husbandmen resort to the rivers or *kháls* for water to irrigate their fields; and if no watercourse is situated within a convenient distance, they are constrained to buy water from those who have tanks near their fields. The *zamindárs* also allow their tenants to irrigate their fields from tanks which they retain in their hands and have not leased out. In a severe drought, however, these resources have but little effect upon the general crop, owing to the want of a sufficient number of tanks and channels, as well as to the heavy cost of labour for irrigation and the rude appliances which exist for drawing water in the rural parts. The Collector is of opinion that a great deal of good might be done, if a number of small artificial watercourses were constructed. Such local works would place a resource within the reach of the cultivators, which they could fall back upon in years of drought, and would also materially improve the sanitary state of the District, by acting as drainage channels.

The Howrah portion of the District is intersected by the two first reaches of the Midnapur High Level Canal, extending from Ulubáriá on the Húglí to Kailá Ghát on the Rúpnráyan. This canal affords not only safe water communication throughout the year, but also the means of irrigation for the neighbouring fields. The Magistrate reports that irrigation works are not much needed in Howrah; but adds, that if the projected Dámodar Canal were extended to Sánkrál, it would afford a good means of drainage for the District, as well as benefit a large extent of low-lying ground, and also be a provision against drought and the possibility of famine in the District. The last severe drought and consequent famine in Howrah was in 1769-70, the year of the great Bengal famine of the last century.

COMPENSATING INFLUENCES IN TIMES OF FLOODS AND DROUGHTS.—The increased fertility and extended cultivation of dry uplands in years of flood does in some measure compensate for the damage to the crops on low lands caused by the inundation. Similarly, in

years of drought or deficient rainfall, the increased production from the low-lying lands and marshes tends to compensate for the loss of the crops upon the higher levels. But in Húglí District the difference in level between the high and low lands is slight, and in many places only nominal, so that the compensating effects of high or low lands in seasons of flood or drought are of very secondary importance, and do not to any appreciable extent avert the evil consequences produced by drought or inundation. In Howrah, the Magistrate reports that excessive rain is preferable to a deficient rainfall, as the greater part of the District is composed of high lands. The low-lying tracts would no doubt suffer from inundation, but the loss would be counteracted by the additional yield from the higher levels. The price of superior rice in years of partial drought or flood varies from 8s. 2d. to 10s. 11d. per hundredweight, and that of inferior rice at from 5s. 5d. to 6s. 10d. a hundredweight. During the great famine of 1769-70, rice sold at £1, 1s. 10d. a hundredweight in Howrah.

THE FAMINE OF 1866.—The Report of the Commissioners appointed to inquire into the Famine of 1866 returns the following as the highest rates reached for ordinary rice in Húglí District :— (1) Chandarnagar, 14s. 9½d., reached in November ; (2) Howrah, 14s. 5½d. per hundredweight, in August ; (3) Bábuganj, 13s. 6½d. per hundredweight, in August ; (4) Serampur, 12s. 9½d. per hundredweight, in September. The Collector reported to me in 1870, that local prices had then returned to the rates at which they stood immediately before the famine, but not to their ordinary rates a few years before that calamity. The following brief account of the effects of the famine in Húglí District is condensed from the District Narrative in the Report of the Famine Commissioners (vol. i. pp. 325-336).

Húglí District does not appear to have suffered from the drought of 1865 to a very extensive degree ; but so much of the soil is devoted to fruits and valuable products, such as jute, sugar-cane, plantains, potatoes, etc., that a considerable proportion of coarse rice, required to feed the population, is always imported from other Districts, and these supplies having been curtailed by the failure in the adjoining country, the price of rice was very greatly enhanced. The scarcity and distress were severest in the west of the District, where the failure of the crops was most general, and where there was a large non-agricultural population of the weaver class, who experienced great suffering. This distressed portion of the District comprised the Police Circles of Jahánábád (since trans-

ferred to Bardwán), Chandrakoná, and Ghátál (since transferred to Midnapur). Considerable distress was also felt in what forms the present District of Húglí proper ; but the prosperous condition of the peasantry enabled them to tide over the famine without suffering the extremity of misery, as was experienced in the neighbouring District of Midnapur. Severe suffering made its appearance in Jahánábád in the middle of June 1866 ; and in the middle of the following month, the Deputy Magistrate reported that there were 2235 men and women in the Subdivision destitute and unable to work, and 3750 able to work, but destitute for want of employment. A flood had increased the local distress, and destitute persons were flocking in from the Districts on the west, and passing on to Calcutta. The Deputy Magistrate was directed to raise local subscriptions for the relief of the destitute, and also to push on work on certain roads for which funds were available. Late in July, the Collector asked for a Government grant, but up to that time the Commissioner thought the local means sufficient. Meanwhile, local relief committees had been formed in the distressed tracts, and some considerable sums collected.

In August, relief centres were opened at seven places in Jahánábád Subdivision, besides one at Ghátál which the merchants of that town maintained at their own private cost, until November, when relief operations were brought to a close. On the 8th August, a grant of £500 was made by the Board of Revenue for the purpose of affording local relief to the helpless ; and at the same time a special allotment of £600 was made in order to employ the able-bodied. On the 13th August, the Deputy Magistrate of Jahánábád was relieved of all other duties, and exclusively employed on relief operations. Cooked food was distributed and employment offered. The towns in which the weavers were numerous were the chief centres of distress. The cultivators did not seek relief. On the 21st August, the Board of Revenue recorded its opinion that the relief measures taken had been insufficient, and that if the necessity had been sooner reported, they might have been taken on a more extended scale. Great difficulty was experienced in getting the weavers of Jahánábád to do road work.

In addition to the relief centres in Jahánábád, two were opened in September at Panduah and Mahánand in the east of the District. In November, 150 persons were being fed daily at Mahánand, and 280 (chiefly strangers and resident weavers) at Panduah. In Chin-

surah a committee of native gentlemen raised subscriptions to the extent of £600, and daily fed all paupers seeking relief, from the 14th July to the 16th October. The aggregate daily totals of the paupers thus fed during this period is reported to have exceeded 100,000. The funds of the committee became exhausted in the middle of October, and were supplemented by a grant of £100 from the Board of Revenue. At Uttarpará and Serampur, also, measures were organized for supplying food, clothing, and medical assistance to the indigent, by several native gentlemen, without assistance from the Government.

There was, properly speaking, no famine in the Howrah portion of the District, but a considerable number of paupers flocked into it from other Districts. With the exception of Ulubáriá (noticed below), the only assistance given was from local sources till August, when, in consequence of its becoming necessary to stop the influx of paupers into Calcutta from Howrah, public relief was obliged to be given. The village of Ulubáriá is situated on the high road from Orissa and Midnapur, where the famine raged severest, and large numbers of poor starving creatures flocked thither, trying to reach Calcutta. Many could go no farther, and the scenes of misery were very painful. In July, a private gentleman, Mr. Sykes, organized a special fund for Ulubáriá, and established a feeding depôt there, of which Government subsequently took over charge. A pauper camp was established at the station of Howrah. At the village of Narit, also, a relief centre was formed. At Howrah and Ulubáriá, relief was given by the distribution of cooked food only; $\frac{1}{2}$ lb. of raw rice and 2 oz. of curry or *dál* were allowed as an average for each pauper, child or adult. The whole was then cooked, and distributed to the multitude, adults being allowed a larger share than children, but the rations were not re-weighed. At Narit, the committee adopted the practice of distributing uncooked food; 7 oz. of raw rice, and half a pice in money in lieu of curry or *dál*, being given to each pauper, without distinction as to age. Pauper hospitals were established at each of the three relief centres, under the immediate supervision of native doctors, each of whom was under the orders of the Civil Surgeon of Howrah. No measures for the treatment of the sick or for the prevention of disease were taken at any other place in the District, nor were any found to be required. Of the deaths that occurred at the several pauper hospitals, the greater number took place

within one week of admission. All persons who arrived at the relief centres in a sickly state were at once transferred to the hospital. Of these, many were in too advanced a stage of starvation, and recovery was from the first hopeless. The death-rate was found to be higher among women and children than men.

No means exist of ascertaining the total mortality due to famine in the District. In the Jahánábád Subdivision, where the mortality was very great, a native gentleman owning large estates in the District estimated the mortality from all causes during July and August at 10,000, or about two per cent. of the population. This is the estimate of a private gentleman, and the Famine Commissioners state that it is impossible to test its correctness. The mortality was not entirely due to actual starvation; the greater part arising from bowel complaints and other diseases brought on by insufficient food. In the Howrah portion of the District, the Commissioners report that—'Many must have died on the part of the Midnapur and Ulubárá road which lies in the District, but of these no record was kept. Among the paupers, however, who reached the kitchens first established, and the relief centres which replaced them, including the whole period from June to the end of December 1866, the number of deaths reported was about 1235. At the Howrah relief centre, the majority were weavers from Jahánábád and its neighbourhood. At Ulubárá, the persons relieved came chiefly from the Districts of Cattack, Balasor, and Midnapur. At the Narit centre, the applicants for relief consisted for the most part of persons of the poorest classes in Howrah District.'

The total daily average number of persons relieved daily in each month in Húglí proper (including Jahánábád, a portion of which has recently been transferred to Midnapur, and a portion to Bardwán District), are returned by the Famine Commissioners as under:—July, 645; August, 3242; September, 5700; October, 6000; November, 4900. In Howrah, the average daily number relieved during the four months of September, October, November, and December, was 1041; the aggregate of the daily totals relieved, from the 25th August to the 31st December, being about 100,000. The total sum placed at the disposal of the Húglí Relief Committee amounted to £3741, of which £600 was given by the Board of Revenue, £1650 by the Central Relief Committee in Calcutta, and £1497 raised by local subscriptions. In the Howrah portion

of the District, the total sum raised or granted for relief purposes amounted to £2209, of which £150 was granted by the Board of Revenue, £1740 by the Calcutta Relief Committee, and £319 raised by local subscriptions. Including both Húglí proper and Howrah, the total average daily number of persons in receipt of relief is returned as follows:—July, 645; August, 3242; September, 6741; October, 7041; November, 5941; and December, 1041. The total sum expended on relief amounted to £5956, of which £750 were granted by the Board of Revenue, £3390 by the Calcutta Central Relief Committee, and £1816 raised by private subscriptions.

FAMINE WARNINGS.—The Collector of Húglí reports that if the price of ordinary rice were to rise as high as 8s. a hundredweight soon after the winter harvest, it should be considered as a warning of approaching famine; and Government relief operations would become necessary when the price of inferior rice rose beyond 10s. a hundredweight. The District mainly depends upon the *áman* or winter rice. A good *áus* or autumn rice harvest could not make up for a total loss of the *áman* crop; but a good *áus* crop throughout the whole District would be sufficient to save the people from famine, even in event of the total loss of the *áman* crop. Taking the famine point to be that at which Government interference becomes necessary to save the people from starvation, the Magistrate of Howrah reports that it would require a total loss of the rice crops to reduce the people to such a state. A mere rise in prices alone would not be sufficient, provided the crops in the District were not lost, as, owing to the great demand which would come from other Districts in the event of the destruction of the crops elsewhere, the agriculturists, who form by far the largest part of the District population, would not suffer, but rather benefit by the distress of their neighbours and the increased rates for produce. The lower order of day labourers would begin to suffer early, but even they would not be in danger of starvation till the price of the quantity of rice needed for their daily consumption exceeded their daily wages. The average earnings of a day labourer may be set down at 10s. a month; and with an average family of three or four members, 4 pounds of rice a day, or 120 pounds a month, would be necessary for their support. With common rice selling at 9s., or even at 10s. 6d. a hundredweight, he and his family would not suffer actual hunger, but would simply have to reduce their

daily allowance a little. The Magistrate of Howrah, therefore, is of opinion that Government aid would not be needed before rice was selling at 13s. a hundredweight. There would be much suffering among the very poorest classes, and probably some actual starvation, even when rice sold at 10s. 6d. a hundredweight, but the great majority of the people, not feeling the pressure themselves, would assist them. In the event, however, of a failure of both the autumn and winter rice crops within the District, all classes would suffer. The mass of small cultivators, who are seldom able to keep a reserve store of grain, would be without food or money, and Government aid would be necessary. In such a case, no private importation of grain by merchants or traders would avert the calamity, for the people would be without the means of buying it; hence, although the local price of food might not be extremely high, the class of petty cultivators, who form the majority of the population, would be in danger of starvation without Government relief. Private charity, either in the way of granting loans to the cultivators to enable them to carry on till the next harvest, or by distributions of food, could not be safely trusted for any length of time to meet such an emergency, especially as the high prices caused by the loss of the crops would also affect the purse of the rich as well as the poor.

In the event of the total loss of the crops, the means of transit at the disposal of the District are sufficient to prevent the extremity of famine, by means of importation from other Districts; nor is there any danger of the isolation of any particular tract, as the roads, rivers, and canals afford means of access to all parts. In the Howrah portion of the District, the Ulubáriá and Midnapur Canal, now open throughout its entire length, provides an excellent means of communication, and the irrigation works in connection with it have already in some measure remedied the effects of drought. The Magistrate of Howrah reports that another canal at right angles to it would make a famine next to impossible. Howrah is not so dependent upon other Districts for its food supply as Húglí proper, and grows sufficient grain to supply its local wants.

FOREIGN AND ABSENTEE LANDLORDS.—There are no European landlords registered on the rent-roll of the District, either in Húglí proper or in Howrah. The Collector has been unable to furnish me with a return of the Muhammadan landed proprietors, or the proportion which they bear of the land revenue. He roughly esti-

mates their number at about one per thousand of the total population of the whole District. In the Howrah portion of the District, the Magistrate reports that there are 252 Muhammadan proprietors, paying a total Government land revenue of £345, 16s. 6d. The Magistrate's returns, however, do not give the total number of proprietors, or the amount of separate revenue derived from the estates in Howrah, and I am unable, therefore, to give the proportion which the Muhammadan landlords, or the revenue they pay to Government, bear to the whole. In Húglí proper, the Collector estimates that the whole area of land owned by absentee landlords does not exceed one-tenth of the cultivated area ; in the Howrah portion of the District, however, the greater part of the land is owned by absentee proprietors. A few large estates, such as the Mandalghát *samindárá*, Lot Kámil Chák, and others, are owned by wealthy proprietors residing in Calcutta.

ROADS.—The 7 principal roads in the District, with their length, are returned as follow :—(1) The Grand Trunk Road. This road properly runs from Calcutta to above Barrackpur, crossing the Húglí river, and entering Húglí District at Paltá Ghát. The road from Sálkhiá to Paltá Ghát, where it joins the great road, is properly only a branch, but is always spoken of as the Grand Trunk Road. The first ten miles of this road, from Sálkhiá to the Báli *khál*, are within the Howrah portion of the District, after which it enters Húglí, and runs close to the line of railway towards Bardwán. The ferry at Paltá Ghát, where the Grand Trunk Road proper crosses the Húglí, is under the charge of the Public Works Department, as is also the road itself. (2) The old Benares road. This road runs from Howrah north-west to the Dámodar at Pursurá ; here it crosses the river by a ferry under the District Road Fund, and stretches to Jahánábád, where it crosses the Dwárkeswar or Dhalkisor by another District road ferry. From Howrah as far as Chanditalá the road is metalled ; beyond the Dámodar for six miles it is cut to pieces by that river, and little or no repairs are attempted, as the money would be wasted ; from Harinkholá to the Bánkurá border it is in fair condition. Near Chanditalá, the road was much damaged by the floods of 1871. (3) Road from Húglí town along the bank of the river to Balágarh, and thence to Guptipará. There are two large iron suspension bridges where this road crosses the Saraswatí and the Kuntí *khál* near Balágarh ; the road was slightly damaged by the floods of 1871. (4) The

next most important road is that running from Baidyabátí station to the old Benares road near Haripál. (5) Road from Howrah to Serampur, 18 miles in length; under the management of the Public Works Department. (6) Road from Howrah to Jagatballabhpur, 17 miles in length; and thence to Amptá, a further distance of ten miles. The second section of this road suffered great damage from the floods of 1871; and the Commissioner of the Division, in his Annual Report for 1871, makes the following remarks regarding its state:—‘This road, which crosses the bed of an enormous *jhil*, or marsh, some three miles wide, appears to have been most insufficiently supplied with bridges, and must always have been liable to be topped and carried away by an inundation. The floods this year (1871) have not only made wide breaches in four or five places, but have scoured out the foundations of three large platformed bridges, the buttresses of which are in ruins, and will all require to be rebuilt. A road made under such disadvantages leads the Magistrate to doubt whether it is worth the sum expended on it, and whether the same money, used in storing the water of the *jhil*, would not supply a means of communication which would be more prized by the general public. The Magistrate remarks that unless the road is thoroughly bridged and metalled, it will only be available for traffic from February to June.’ (7) Road from Ulubáriá on the Húglí, to Naupálá on the Rúpnaráyan opposite Kailá Ghát, 30 miles in length. After crossing the Rúpnaráyan, the road enters Midnapur District, and is continued past Midnapur town and through the whole Province of Orissa, forming the great highway to the shrine of Jagannáth at Purí. The road is under the management of the Public Works Department.

THE 24 MINOR ROADS in the District are the following:—(8) Road from Uttarpárá to Kálípur, 7 miles in length; (9) road from Serampur to Masát, 12 miles in length; (10) road from Serampur to Chanditalá, 8 miles; (11) road from Baidyabátí to Tárakeswar, 18 miles; (12) road from Chinsurah to Dhaniákháli, 20 miles; (13) road from Tribení to Bhástará, called Chhaku Sinh's road, 20 miles; (14) road from Panduah to Bákuliá, 12 miles; (15) road from Konnagar to Naihátí, 7 miles; (16) road from Káotá to Balágarh police station, 14 miles; (17) road from Magrah to Mahánand, 9 miles; (18) road from Bhástará to Bainchí, 7 miles; (19) road from Mahánand to Bhástará, 6 miles; (20) road from Dwárbásini to Mahánand, 3 miles; (21) Húglí to Dwárbásini, 13 miles; (22)

Tribeni to Magrah, 2 miles; (23) road from Bará to Seákhálá, 6 miles; (24) road from Konnagar to Janái, 7 miles; (25) road from Chandarnagar to Bholá, 13 miles; (26) road from Masát to Jagatballbhpur, 6 miles; (27) road from Dwárhátá to Krishnanagar, 6 miles; (28) road from Chhinámor to Pálará, 2 miles; (29) road from Baidyabáti to Gobindpur, 5 miles; (30) road from Bhadreswar to Ghungir *khál*, 6 miles; (31) Nágpur road, 14 miles.

Of these thirty-one roads, only the Grand Trunk Road, the road from Ulubáriá to Naupálá, and that from Howrah to Serampur, are under the Public Works Department. All the others are under local management, maintained partly at Government expense and partly from the proceeds of tolls and ferries. The total length of roads in Húglí District is returned by the Collector at four hundred miles, maintained at an average annual cost for repairs, of about £4000. Besides the ferry at Paltá Ghát, where the Grand Trunk Road crosses the river, which is under the Public Works Department, and regarding which I have no returns of the proceeds, the following three Government ferries are established in the District, and let out for the under-mentioned amounts in 1871-72:—Pursurá ferry, £72, 10s. od.; Mandeswarí ferry, £107, 10s. od.; Telinípára ferry, £17, 10s. od. There are also the following ferries in Húglí, the proceeds of which are wholly or in part devoted to municipal purposes:—Húglí *ghát*, Bábuganj, Sánreswartalá, and Machuá Bázár ferries, within the Húglí Municipality; Konnagar, Máhesh, Jugal-Addis, Nimaitrtha, and Rishrá ferries, within the Serampur Municipality; and Dakshíneswar, within the Uttarpara Municipality. I have no information with regard to the number or value of the ferries in the Howrah portion of the District. No large market has lately sprung up along any of the above lines of road; but the Collector reports that the markets in the villages along the Howrah and Serampur road, as well as those in several villages in the interior, are rapidly rising in importance.

RAILWAYS.—The East Indian Railway has its Bengal terminus at the station of Howrah, and runs through Húglí District for a distance of about 45 miles. The different railway stations, with their distance from the Howrah terminus, are as under:—(1) Báli, distance from Howrah, 6 miles; (2) Konnagar, 9 miles; (3) Serampur, 12 miles; (4) Baidyabáti, 15 miles; (5) Chandarnagar, 21 miles; (6) Húglí, 24 miles; (7) Magrah, 29 miles; (8) Khanyán, 35 miles; (9) Panduah, 38 miles; and (10) Bainchí, 44 miles. The trade of Baidya-

bátí and Bhadreswar, a large village near the Chandarnagar railway station, has largely increased since the opening of the railway.

CANALS.—The principal canal in the District used for navigation and purposes of intercommunication, is the Midnapur High Level Canal in its two first sections. The first reach of the canal starts from Ulubaría, about sixteen miles below Calcutta, and joins the Dámodar at Mahishrákhá. It is 8 miles in length; top width of canal, 92 feet; bottom width, 36 feet; and depth, 9 feet. The second reach of the canal extends from the Dámodar to the Rúpnráyan opposite Kailá Ghát, from which point it enters Midnapur District. This reach is 4 miles in length; top width of canal, 120 feet; bottom width, 36 feet; and depth, 14 feet.

There are five other canals, or *kháls*, in the Howrah portion of the District, used as a means of water carriage. These canals are very old, and I have been unable to obtain any information as to when they were constructed or by whom. The following is a list of them:—The Báli *khál*, running from the Húglí at the village from which it derives its name, and falling into the Dánkuní marsh, west of the station of Serampur. It is ten miles in length, thirty feet broad, and twelve feet deep. The villagers carry large quantities of fish and vegetables to Calcutta by means of this canal. (2) The Sánkrál *khál*, reaching from the Húglí river near Sánkrál, and extending to Masát in the Serampur Subdivision. It is eight miles in length, fifteen feet broad, and nine feet deep. The villagers use the canal for carrying agricultural produce and coconuts for sale to Mahiári and Bigrí, as well as to the stores or *kháts* of small merchants, situated along the banks of the canal. (3) The Kálsápá *khál* extends from the Húglí river at Kálsápá to beyond Jagatballabhpur. It is six miles in length, thirty feet broad, and eight feet deep. The villagers take their paddy and grain for sale to the merchants of Nálá, Mágurkhálí, and Siddheswarí by means of this canal. (4) Mithákundu *khál*, reaching from the Húglí at Mithákundu near Ulubaría. It is six miles in length, fifty feet broad, and eighteen feet deep. It falls into the Dámodar river near Gájankul. Grain and straw are brought to the Calcutta market by means of this canal. (5) The Pukuriá *khál* extends from the Húglí near the village of Pukuriá, and falls into the Dámodar at Goálbaría. It is three miles long, sixty feet broad, and eighteen feet deep. Agricultural produce is also taken to Calcutta by means of this canal.

MINES AND QUARRIES.—No mines are worked either in Húglí or Howrah. A valuable description of fine sand used in building is dug up from the old bed of the Saraswatí river at Magrah, and limestone is quarried in tracts bordering on Midnapur District.

THE MANUFACTURES OF HUGLI are of the same ordinary description as those of other Districts, but they are produced in larger quantities, sufficient not only to meet local requirements, but to a great extent to supply the wants of the Calcutta market. The principal manufactures are silk and cotton weaving. At Chandrakoná and Khirpái are large settlements of cotton weavers, and at Ghátál, of silk weavers. The fabrics manufactured are of superior quality, and command high prices. All these towns are situated in the tract transferred in 1872 from Húglí to Midnapur. The present District, however, contains a considerable weaving population; and at Kalme, cotton fabrics of superior quality are woven, which are sold at prices much above the ordinary rates. At the village of Chakrabárá, the weavers make a well-known and superior description of *dhutis* and *sáris*, which go by the name of the village in which they are made. The other villages in the District, where a considerable amount of cotton fabrics are manufactured, are Khursarái, Máyápur, Guruk, Rájbalhát, and Begampur. At Bálughát, a great deal of gunny cloth is manufactured, of which bags are made. Both gunny and cotton cloth are woven on the same description of native loom, called *tánt*. Before the thread is put on the looms, it is immersed in water, and then pasted over with a starch made from boiled rice. Native cotton cloths, such as *dhutis* and *sáris*, are manufactured at the Ghusrí cotton mills near Howrah, by the European process. Paper mills have been established at Serampur and on the Báli *khál*, where paper is manufactured according to the European method. At Mainán there is another paper manufactory, but the process is conducted according to the native method. A large quantity of waste-paper and old rags is collected, and the material cut up into minute pieces and powdered. It is then placed in water, and kept immersed until decomposition sets in; the pulpy liquid matter is next sieved and dried up. The dried matter is the paper. Superior kinds of mats are woven at Serampur, Amptá, Bandipur, Akrí, and Borái. Oil is largely manufactured out of castor and mustard seed by pressing. The mill in which the oil is prepared is of very simple construction, being composed entirely of wood.

Bullocks are used to drive it Brass work is carried on at the villages of Bainchí and Khánpur. Ropes of jute and hemp are manufactured at Baidyabáti, Krishnapur, Maklá, Uttarpára, and Konnagar. Baskets are made in the villages of Máyápur, Bandipur, and Madrá. Pottery of the common kind is made in the villages of Bhadreswar, Sukindá, Bágán, and Syámpur.

CONDITION OF THE MANUFACTURING CLASSES.—The manufacturing classes, as a rule, although generally speaking prosperous, do not hold a high social position, as they principally belong to the lower castes. Many of the artisans, however, such as blacksmiths, potters, braziers, etc., belong to the upper Súdra castes, and are looked upon with a certain amount of respect. The majority of the manufacturers of Húglí District carry on their business in their own houses, and on their own account, with either their own or borrowed money. There are, however, several capitalists who invest money in different manufactures, taking upon themselves the risks of the trade, and also enjoying its profits. The material condition of the manufacturing and artisan classes, like that of the agriculturists, varies according to the extent of their business. In the majority of cases where a manufacturer carries on business by means of borrowed capital, the money-lender, instead of advancing money, buys on his own account the raw material required, and makes it over to the manufacturer. He has a lien upon the manufactured articles, and frequently finds a customer for them; as soon as the articles are sold, the manufacturer refunds the value of the raw material purchased for him by the money-lender, with interest varying from twenty-five to thirty-six per cent.

The following table shows the number of skilled workers, mechanics, and artisans in Húglí District, including Howrah, under their respective trades, as returned by the Census of 1872, making a total of 49,876 men :—

MANUFACTURING CLASSES AND ARTISANS OF HUGLI
DISTRICT, INCLUDING HOWRAH.

Male adults.	Male adults.	Male adults.
Indigo Factors, . . . 33	Tinmen, . . . 233	Loom-maker, . . . 1
Oil Manufacturers, 163	<i>Kalaigars</i> , . . . 19	Cotton-carders, . . . 33
Leather-workers, . . . 5	Goldsmiths, . . . 3682	Silk-weavers, . . . 149
Fat-workers, . . . 19	Jewellers, . . . 17	Cotton-weavers, 17,049
Cotton Manufac- turers, . . . 23	Watchmakers, . . . 11	Jute-weavers, . . . 310
Jute Manufacturers, 365	Potters, . . . 4185	Coir-weavers, . . . 30
Mechanical En- gineer, . . . 1	Cabinetmakers, . . . 43	Dyers, . . . 28
Brick-masons, . . . 3344	Combmakers, . . . 15	Tailors, . . . 2790
Stone-masons, . . . 13	Matmakers, . . . 606	Cap-makers, . . . 15
Brickmakers, . . . 687	Fanmakers, . . . 44	Shoemakers, . . . 735
Sawyers, . . . 246	Basketmakers, . . . 1478	Ornament-makers, . . . 21
Carpenters, . . . 3855	Whipmakers, . . . 14	Umbrella-makers, . . . 12
Thatchers, . . . 1498	Toymakers, . . . 41	Tape-makers, . . . 46
Painters, . . . 17	Beadmakers, . . . 42	Gunnybag-makers, . . . 167
Well-diggers, . . . 2	Hookah-makers, . . . 23	Net-makers, . . . 12
Carriage-builders, . . . 21	Grindstone-maker, 1	Cloth-printers, . . . 5
Cart-builders, . . . 104	Musical Instrument Makers, . . . 4	Embroiderers, . . . 93
Boat-builders, . . . 645	Lacquered Ware Makers, . . . 242	Jute-spinners, . . . 102
Caulkers, . . . 17	Leaf Plate Makers, 2	Printers, . . . 261
Blacksmiths, . . . 3865	Garland-makers, . . . 328	Bookbinders, . . . 32
Coppersmiths, . . . 6	Gilders, . . . 22	Engravers, . . . 29
Braziers, . . . 90	Shell-carvers, . . . 200	Paper-makers, . . . 349
<i>Kansaris</i> , . . . 941	Caneworkers, . . . 114	Compositors, . . . 278
		Total, . . . 49,876

EXTINCT MANUFACTURES.—Several manufactures have decayed or died out in Huglí District. Formerly the East India Company had large commercial concerns here, and silk and cotton fabrics were manufactured to the value of about £100,000 annually. But the withdrawal of the Company's weaving factories and the importation of English piece goods gradually put a stop to these manufactures, and thousands of weavers were forced to give up their hereditary occupation, and betake themselves to agriculture. At Mayrápati near Sálkhiá, in Howrah District, a considerable community formerly subsisted by weaving silk cloth, but for some years past they have given up the occupation as unprofitable. Hand-weaving in India is a fast decaying trade, country-made fabrics being unable to compete with English piece goods. Another class of weaving manufacture has entirely died out in the District. Formerly the women of the poorer classes of Bráhmans, and also of well-to-do artisans and manufacturers, spun a very fine description of silk and cotton thread, which was sold to the weavers of Dhaniákháli and other places, for the manufacture of the most superior descriptions of native wearing apparel, such as *dhutis* and

sáris. Some of these *dhutis* and *sáris* were of such a fine texture as to weigh not more than one or two ounces. This delicate description of cloth was at first a speciality of Dacca District, and the manufacture is still carried on there, though to a very much less extent; the cloth woven, also, not being so fine as before. A description of the manufacture will be found in my Statistical Account of Dacca District. Up to the commencement of the present century, Panduah was the seat of a large native paper manufacture, for which it was as much celebrated as the town of Arwal in South Behar. Not a trace of this manufacture exists in Panduah at the present day.

TRADE AND COMMERCE.—The chief articles of trade in Húglí proper are rice, silk, indigo, jute, hemp, cotton fabrics, potatoes, molasses, and vegetables. Trade is principally carried on by means of permanent markets, the chief seats of commerce being Baidyabáti, Bhadreswar, Chandarnagar, Bandapára, and Báli-Díwanganj. A considerable amount of trade is also carried on at fairs and religious festivals. The principal of these trading-religious fairs are held on the occasion of the *dol játrá*, in the month of Phálgun, corresponding to the English month of March; the *rath játrá*, held at the villages of Máhesh and Ballabhpur, in Ashár (June); the *Sivarátri*, at Tárakeswar, in February. The chief articles imported into Húglí District are common rice, English piece goods, lime from Silhet, Bardwán, and Rániganj, timber and articles of luxury. The principal exports are fine rice, silk, indigo, jute, cotton cloth, and vegetables. The Collector reports that, judging from the increased wealth and material prosperity of the people, Húglí exports more than it requires to buy from other Districts.

In the Howrah portion of the District, the chief articles of trade are agricultural and vegetable produce. Large dealings are also carried on in clarified butter (*ghi*), oil, milk, salt, sugar, cotton, bricks, tiles, timber; and animals, such as cows and goats. Trade is conducted by means of permanent markets, the principal of which are situated in the large villages of Sálkhiá, Ghusrí, Sibpur, Rámkrishnapur, Báli, Mahiári, and Ulubáriá. The sales which take place at local fairs and religious gatherings, such as the *Rám nabamí* and *dol játrá* in March, at Báli, the *rath játrá* in June, at the town of Howrah, and the *chaitra sankrántí* or *charak pújá* in April, at various places in the District, are principally limited to sweetmeats and earthen toys. With the exception of cloth, the local manu-

factures only suffice for the requirements of the District. A large quantity of cotton cloth is sold at the Howrah *hát* on market days. The surplus rice and straw produced in the southern parts of the District are exported to Calcutta, as also are bricks from Sibpur, Sánkrál, Rájganj, and Kotrang. Large quantities of vegetables and fish also find their way into the Calcutta market from Howrah. The principal imports into the District are piece goods.

CAPITAL AND INTEREST.—Large savings are generally invested in the purchase of landed property, or in Government securities, or else are lent out at interest. Money is never hoarded in the District. The rates of interest charged in small loan transactions, where the borrower pawns some article of jewellery or household furniture, varies from twelve to twenty-four per cent. In large loan transactions, in which a mortgage is given of moveable property, the rate of interest is usually twelve per cent. ; when a mortgage is given of land or house property, the rate varies from nine to twelve per cent. The rate of interest charged on petty agricultural advances to the cultivators varies from eighteen to twenty-five per cent. In the purchase of an estate, six or six and a half per cent. is considered to be a fair return for the money invested. There are no large native banking establishments in the District. Loans are seldom advanced by the village shopkeepers as in other Districts ; it is the small capitalists, and in many cases the landholders themselves, who usually lend money to the cultivators or manufacturers.

IMPORTED CAPITAL.—The only instances in which industries are conducted by European capital, are the railway, the dockyards, spinning mills, and the workshops in or near Howrah. I have been unable to obtain any particulars regarding the amount of capital so invested, or the return it yields.

INSTITUTIONS.—Excluding educational and medical institutions, which will be treated of in subsequent sections of this Statistical Account, the following is a list of the principal institutions in the District, mainly compiled from the annual report of the Commissioner of the Division for the year 1871-72 :—(1) The Society for the Propagation of the Gospel and the Baptist Mission have several establishments in the District. (2) In the station of Howrah, the Mechanics' Institute is supported by about a hundred subscribers, almost all of whom are European employés of the East Indian Railway. (3) There is a public library at Chinsurah, supported by private subscriptions, and the interest on £200 in-

vested in Government securities. In 1871, the local subscriptions amounted to £2, 2s. od. a month, which, together with the interest of the invested money, covered the house rent, establishment, and the subscription payable for two newspapers. The number of volumes in the library in 1871 was 1210. (4) At Chinsurah there is also a poor fund, originally established during the time when it was held by the Dutch; and maintained by donations from private persons, and the proceeds of certain fines made over by the Dutch Government. At the cession of Chinsurah by the Dutch to the East India Company, the former left in charge of the latter a sum of £3835 in Government securities, for the purpose of assisting indigent residents of Chinsurah. The interest which the securities yield covers a monthly disbursement of £13. (5) A public library was opened at Serampur in August 1871, and was liberally subscribed to by nearly all the landholders of the neighbourhood; it contained 232 volumes at the end of that year. (6) There is also a public library at Konnagar, and a larger one at Uttarpára. The latter owes its origin to Bábu Joykissen Mukharji, a wealthy landholder of Uttarpára, and from the large number of books that it contains relating to Indian affairs, is an institution of much value. This library, which has been in existence for several years, is maintained entirely at the expense of the founder. (7) There is also a literary society established in Uttarpára, called the Young Men's Association, and a literary and charitable society called the Hitakarí Sabhá.

NEWSPAPERS AND PRINTING PRESSES.—Two newspapers are published in Húglí District, viz., the *Friend of India*, a weekly English newspaper printed at Serampur, and the *Education Gazette*, a weekly publication printed in Bengali. There are four private printing presses in Serampur, of which two print in English and Bengali, and two in Bengali only; one press at Chinsurah, which prints in English and Bengali; one at Bábuganj, printing in Bengali; two at Howrah station, printing in English and the vernacular; and one at Sibpur,—the Bishop's College Press,—also printing in English and the vernacular.

INCOME OF THE DISTRICT.—The Collector returned the total of incomes over £50 per annum in Húglí District, including Howrah, as calculated for the Income Tax of 1870, at £547,814. The estimate proved too low; for this sum would yield a total income tax of £17,119 at its then rate of $3\frac{1}{8}$ per cent. The net

amount of tax actually realised in Húglí District in 1870-71 amounted to £18,286. In the following year, 1871-72, the rate of the tax was reduced to $1\frac{1}{2}$ per cent., and the minimum of incomes liable to assessment raised to £75 per annum. The net amount of income tax realized in that year was £4788, 14s. od.

REVENUE AND EXPENDITURE. — I have endeavoured to make up a comparative statement of the revenue and expenditure of Húglí District from the records available for 1819-20, 1850-51, and 1870-71; but, after an examination of the statements thus compiled, I have found it necessary to relinquish the attempt for the first year. The District of Húglí was formed in 1819-20; but the original deficiencies in the records, with the alterations in area which have since taken place, and the changes in the method of keeping the District accounts, render a comparison of the balance sheet of 1819-20 with those of subsequent years absolutely misleading. Even with regard to 1850-51 as compared with 1870-71, the same remarks apply, although in a modified sense. After mature consideration, however, I think it better to record the results of my effort at comparison for 1850-51 and 1870-71, than to leave the subject altogether blank. From the following statements, it will be seen that both the revenue and the expenditure have very largely increased. But while the two tables are of value for comparative purposes with regard to individual items, and may be taken to not unfairly represent the increase under some of the specific heads, it would not be safe to draw conclusions regarding the total increase in the revenue or the expenditure from the totals exhibited by these statements. The method of account in 1850-51 differed in many important respects from the system employed in 1870-71. I have, after a careful investigation, endeavoured to make up for these differences in the following statements. Many of the individual items are interesting, and fairly trustworthy for comparative purposes, but I do not think that the totals can be safely accepted as a basis for such inductions.

THE LAND REVENUE in 1850 amounted to £116,496, 9s. 2d.; in 1870, the 'current land revenue demand' was £145,462, 10s. od.; and in 1873, after the area of the District had been considerably reduced by transfers of estates to Bardwán and Midnapur, the 'current demand' amounted to £128,062, 18s. od. Subdivision of estates has gone on rapidly of late years. In 1850, the number

[Sentence continued on page 380.

REVENUE AND EXPENDITURE.

379

BALANCE SHEET OF HUGLI DISTRICT FOR THE YEAR 1850-51.

REVENUE.		EXPENDITURE.	
(1) Land Revenue,	£116,496 9 2	(1) Mint Master,	£83 15 0
(2) <i>Sdyer</i> Revenue,	755 3 2	(2) Post Office,	1,190 0 0
(3) <i>Abkairi</i> ,	8,748 10 2	(3) Commercial Department,	46 3 0
(4) Post Office,	1,496 4 2	(4) Salt,	2,140 14 9
(5) Judicial,	4,715 9 6	(5) Judicial Charges General,	8,272 19 0
(6) Mufassal Police,	478 0 0	(6) <i>Faujdar</i> Court,	20,014 11 3
(7) Stamps,	6,365 5 4	(7) Revenue Charges General,	4,452 10 0
(8) Chinsurah Poor Fund,	197 13 0	(8) Chinsurah Poor Fund,	183 18 10
(9) Education Receipts,	2,002 5 0	(9) Education,	8,141 17 0
(10) Judicial Charges General,	40 10 4	(10) Pensions (Netherlands Government),	112 17 1
(11) Revenue Charges General,	18 6 8	(11) Pensions,	679 16 3
(12) Collections from <i>Khás Mahals</i> ,	208 15 7	(12) <i>Sdyer</i> Compensation,	894 7 9
		(13) Stamps,	383 8 11
		(14) Charges General : General Department,	1,409 16 7
		(15) <i>Khás Mahal</i> Collections,	107 10 2
		(16) Law Charges,	141 2 4
		(17) Court of Wards,	2 13 6
		Total,	£48,258 1 5
	Total,		
	£141,522 12 1		

NOTE.—No return of police or jail expenditure is given in the Statement. On the receipt side appears an item of 'Mufassal Police, £478, os. od.,' which, however, does not represent the whole police charges.

BALANCE SHEET OF HUGLI DISTRICT FOR THE YEAR 1870-71.

	Revenue.			Expenditure.		
	£	s.	d.	£	s.	d.
Land Revenue (current demand),	145,462	10	0	9,594	7	0
Stamps, etc.,	17,094	12	0	511	6	0
Excise,	24,319	18	0	1,213	8	0
Education,	20,394	5	4	26,776	13	10
Police,	300	12	0	20,193	2	0
Post Office,	3,254	13	7	3,108	6	5
Income Tax,	18,286	14	<i>one</i>	...		
Civil Justice,	817	13	8	14,925	8	5
Criminal Justice,	1,442	11	9	635	14	4
Pounds,	252	2	0	6	19	9
Ferries,	279	0	0	0	2	0
Tolls,	1,368	8	0	0	6	0
Zamindari Post,	534	4	0	524	18	0
Medical, . . . . .	...			1,147	16	3
Jails,	1,988	11	2	3,058	17	5
Registration,	1,203	7	6	114	0	3
Ecclesiastical, . . . . .	...			888	0	0
Town Tax,	2,386	18	0	2,111	14	10
Miscellaneous,	156	0	0	178	11	0
Total,	239,542	1	0	84,989	11	6

Sentence continued from page 378.]

of estates entered on the District rent-roll amounted to 2784, held by 5775 proprietors or coparceners. The total land revenue amounted to £116,496, 9s. 2d., the average payments by each estate being £41, 16s. 11d., and by each individual proprietor, £20, 3s. 5d. In 1870, the estates in the District numbered 3850, held by 8215 proprietors or coparceners. The total land revenue demand for the year was £145,462, 10s. 0d., or an average of £37, 15s. 9d. from each estate, or an average of £17, 14s. 1d. from each individual proprietor or coparcener. In 1873, after the transfer to Bardwán and Midnapur of what formerly comprised the Jahánábád Subdivision, the number of estates fell to 3537, the total amount of revenue payable to Government being £128,062, or an average of £36, 4s. 1d. by each estate.

The following table, showing the number, revenue, annual value, and profit of revenue-paying estates in Húglí District is quoted from a report by the Collector to the Government of Bengal, dated 12th June 1873 :—

STATEMENT SHOWING NUMBER, REVENUE, ANNUAL VALUE, ETC., OF ESTATES IN HUGLI.

CLASS OF ESTATES.	Total Number.	Total Revenue payable to Government.	Aggregate Estimated Annual Value.	Profit.	Average Profit of each Estate.	Average Profit per £ of Revenue.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Estates paying above £10 revenue, . . .	438	120,582 8 0	258,378 10 0	137,796 2 0	314 12 0 ³ / ₄	1 2 10
Estates paying below £10 revenue, . . .	2163	2,734 0 0	8,479 14 0	5,745 14 0	2 13 1 ¹ / ₂	2 2 0
Government Estates of above £10 revenue,	16	3,089 16 0	4,316 6 0	1,226 10 0	76 13 1 ¹ / ₂	0 7 11
Government Estates of below £10 revenue,	28	64 6 0	125 8 0	61 2 0	2 3 7 ¹ / ₂	0 19 0
Aimá Estates paying above £10, . . .	16	361 16 0	3,287 12 0	2,925 16 0	182 17 3	8 1 9
Aimá Estates paying below £10, . . .	876	1,230 12 0	4,530 12 0	3,300 0 0	3 15 4	2 13 7
Total, . . .	3537	128,062 18 0	279,118 2 0	151,055 4 0	42 14 1 ¹ / ₄	1 3 7 ¹ / ₄

In the 438 large estates paying upwards of £10 a year as Government revenue, the average rate of profit derived by the proprietors amounts to £314, 12s. od. for each estate, or to £1, 2s. 9½d. for every pound sterling of revenue. The value and profit of estates, however, are not uniform, but differ materially according to the circumstances connected with each estate. In illustration of this, the Collector cites the following examples:—

(1) Estate Khálor, *parganá* Khálor; Government revenue, £1039. From certain papers filed by the proprietor of the estate in the year 1822, or half a century ago, it would appear that the proprietor's rent-roll (*jamábandi*) of this estate then amounted to £1927, 10s. od. The assets of the estate, as returned in 1873, amounted to £3333, 2s. od. (2) Estate Dwárbásini, *parganá* Panduah; Government revenue, £3020, 6s. od. The quinquennial papers of 1800 show that this estate consisted of thirty villages covering an area of 6259 acres, exclusive of 568 acres of rent-free land, and that the assets of the estate in that year amounted to £3599, 14s. od. The Collector (1873) states that the *zamindárs* have not given any information regarding the rent-free lands, yet the annual assets of the estate assessed on returns received amount to £8395, 10s. od., exclusive of about £600, which one of the two shareholders in the estate objects to being included in the assets, as being irrecoverable at present, on account of deaths, desertions, and disputes. (3) Estate Sulalpur, *parganá* Panduah; Government revenue, £70, 14s. od. The records of 1796 state the area of this estate to be 256 acres, and that the assets at that time amounted to £85, 18s. od. The assets now fixed on the estate amount to £170, 6s. od. (4) Estate Kalorá, *parganá* Boro; Government revenue, £130, 5s. 9d. According to papers filed in 1823, the collections from this estate then amounted to £147, 2s. od.; its assets as at present assessed amount to £1334, 8s. od. The proprietor of this very profitable estate is the Rájá of Andul. (5) Estate Kalorá (No. 2), *parganá* Boro; Government revenue, £261, 14s. od. According to papers filed in 1795, the collections from the estate amounted to £830, 2s. od. in that year; other papers show that within the short period of nine years afterwards, the assets had increased from £830, 2s. od. to £1833, 6s. od. In 1873, the assets of the estate were ascertained and fixed at £3368, 8s. od., according to returns filed. The Rájá of Andul is proprietor of this estate also. (6) Estate Mandalghát, *parganá* Mandalghát; Government revenue in 1873,

£20,141, 17s. od. The total Government revenue derived from this estate in 1796 was £24,255, the assets at that time being returned at £27,427, 10s. od. The Collector reports that four-fifths of this estate now belong to Bábu Híráál Sil and brothers of Calcutta, the remaining one-fifth being held in two equal shares, under separate accounts, by the heirs and representatives of the late Pránnáth Chaudhrí of Sátkehrá, in the 24 Parganá. The revenue paid by the Sils is £17,903, 18s. od., and each of the other two sharers pay £2237, 19s. od., or a total of £4475, 18s. od. for the whole one-fifth share. The assets assessed on the one-fifth share are £6403, 16s. od., leaving an annual profit of nearly £2000; the assets of the share belonging to the Sil family has been fixed at £42,832, 18s. od., being £24,929 in excess of the Government revenue.

These figures amply illustrate the great increase in the value of landed property. The Collector is of opinion that, with the exception of the case of the Andul Rájá's estate, a considerable increase of the rental is due to increase of population and extension of cultivation, the resumption of lands formerly held rent-free under invalid grants, and the growth of commerce, as also the increased value of agricultural produce and recent enhancements of rent. The exceptional and extraordinary excess of assets over revenue in the estates belonging to the Rájá of Andul may be attributed not only to the causes mentioned above, but also to the proximity of the estates to the metropolis, and to the fact that Rám Charan Rái, the founder of the family, was *diwán* in the early days of the British Government. It is suggested that these and other revenue free tenures were granted to Rám Charan as a reward for his services.

THE LAND LAW.—The provisions of Act x. of 1859 have been largely made use of in Húglí District, as the following statement of suits instituted under the Act will show:— In 1861-62, 6676 original suits were instituted, besides 3839 miscellaneous applications; in 1862-63, there were 8374 original suits instituted, besides 7753 miscellaneous applications; in 1866-67, the number of original suits instituted amounted to 4415, and of miscellaneous applications, to 9699; in 1868-69, the number of original suits was 5608, and of miscellaneous applications, 10,861.

PROTECTION TO PERSON AND PROPERTY has much increased of late years. In 1860, there were ten Magisterial and twenty-two

Civil and Revenue Courts in the District; in 1862, there were eleven Magisterial and twenty-three Civil and Revenue Courts; in 1869, the number of Magisterial Courts had increased to fourteen, and the Civil and Revenue Courts to twenty-five; in 1870-71, they had increased further to sixteen Magisterial and thirty-five Civil and Revenue Courts. There were seven Covenanted English officers at work in the District throughout the year in 1860-61, and eight in 1870-71. I am unable to give the exact number of Courts or of Covenanted officers in the District at earlier periods; but they were much fewer.

POLICE PROTECTION has also increased. Excluding the Sub-division of Jahánábád recently transferred, the District is now divided into eighteen Police Circles (*thánás*). The force for the protection of life and property consists of the regular police, a municipal police for the protection of the town, and a rural police or village watch. As most of my revenue statistics refer to the period before the boundaries were revised, I give the police figures also for the year 1871. They include the Jahánábád Subdivision, now no longer belonging to the District. The regular police of Húglí and Howrah consisted of the following strength at the end of 1871:—3 superior European officers, consisting of a District Superintendent each for Húglí and Howrah, and an Assistant Superintendent for Húglí, receiving a total salary of £2880 per annum; 11 subordinate officers, on a salary of upwards of £120 a year; and 168 officers on less than £120 a year,—maintained at a total cost of £7308, or an average pay for each subordinate officer of £40, 16s. 6d. per annum; 958 foot constables, maintained at a total cost of £7620, or an average annual pay of £7, 19s. od. for each man. The other expenses connected with the regular police in 1871 were the following:—A sum of £300 allowed as travelling expenses to the Superintendents; £442, 6s. od. for pay and travelling allowances of their office establishments; £49, 4s. od. for horse allowance; and £2126, 12s. od. for contingencies and all other expenses, bringing up the total cost of the regular police of the District to £20,726, 2s. od. The Census Report of 1872 returns the area of Húglí District, including Howrah, at 1424 square miles, and the population at 1,488,556. According to these figures, the total strength of the regular police force is one man to every 1·25 square miles of the District area, or one man to every 1305 of the population. The cost of maintenance is equal to £14,

11s. 1d. per square mile of area, or 3¼d. per head of the population. These results, however, do not represent the actual facts. The Census figures of area and population are exclusive of Jahánábád; while the police statistics given above are for the year 1871, at which time Jahánábád formed a portion of Húglí District. In October 1871, shortly before the transfers to Bardwán and Midnapur, the Surveyor-General returned the total area of the District at 1962 square miles, giving one policeman to every 1·72 square miles of area. The municipal police maintained in the towns and large villages (excluding Howrah) consisted in 1871 of 23 officers and 560 men, kept up at a cost of £4475, 12s. od., defrayed by means of rates levied from the householders and shopkeepers carrying on business within municipal limits. The police of Howrah town are included in the regular District police, the Howrah Municipality contributing £2948, 2s. od. in 1871 for the maintenance of the District police employed on town duty. The rural police, or *chaukidárs*, for the watch and ward of the villages in the interior of the District, consisted in 1871 of 7068 men, maintained by rent-free grants of land and contributions from the villagers, at an estimated total cost, including both sources, of £17,855, 16s. od., or an average annual pay in money or lands of £2, 10s. 6d. for each man. Each village watchman has, on the average, 73 houses under his charge.

Including the regular police, the municipal police, and the village watch, the machinery for protecting person and property in Húglí District (including Howrah) consisted in 1871 of a total force of 8791 officers and men, equal, according to the Census returns of the area and population of the District in 1872, to an average of one man to every ·16 of a square mile, or one man to every 169 of the population, maintained at an aggregate cost of £43,057, 10s. od., equal to a charge of £30, 4s. 8¾d. per square mile, or 7d. per head of the population. The area of the District, as constituted in 1871, however, amounted to 1962 square miles, which would give one policeman of all ranks to every ·22 of a square mile, the total cost being £23, 13s. od. per square mile. The eighteen Police Circles (*thánás*) into which the District is at present divided are as follow:—(1) In the Húglí or Headquarters Subdivision—Húglí, Bánsbáriá, Balágarh, Panduah, and Dhaniákhálí. (2) In the Serampur Subdivision—Serampur, Baidyabátí, Haripál, Krishnanagar, and Chanditálá. (3) In the

Howrah Subdivision—Howrah, Dumjor, and Jagatballabhpur. (4)
 In the Mahishrákhá Subdivision—Khánákul, Amptá, Ulubáriá,
 Bágnán, and Syámpur.

WORKING OF THE POLICE.—During the year 1871, the police conducted 3786 ‘cognisable’ cases, the percentage of final convictions to persons brought to trial being 61·4 per cent. ; and 6268 ‘non-cognisable’ cases, the proportion of final convictions to prisoners brought to trial being 54·4 per cent. The total number of both cognisable and non-cognisable cases in 1871 was 10,054, the percentage of final convictions to prisoners brought to trial being 56·9 per cent. The following are the statistics of the serious crimes which occurred in Húglí District during the years 1870 and 1871. In 1870, 10 cases of murder were reported in Húglí proper, of which detection followed in but one instance, or only 10 per cent. ; 4 murders took place in Howrah, but in no case was the crime followed by detection. In 1871, 4 cases of murder occurred in Húglí. The report of the Inspector-General of Police, from which the above figures are taken, does not give the number of cases acquitted, but mentions that 5 men were acquitted after trial in the Sessions Court ; neither does it report the number of murders (if any) which occurred in the Howrah part of the District. The cases of murder have decreased of late years in Húglí, from 25 cases in 1851, to 8 in 1861, and 4 in 1871. Gang robbery or dacoity is of frequent occurrence, although a very remarkable decrease has also taken place. In 1871, the number of cases in Húglí proper had fallen to 10 from 20 in 1870 ; the average of the five years previous to 1870 showing upwards of 40 cases. The Inspector-General of Police, in his report for 1871, states :—‘The decrease may be ascribed to the strict supervision exercised over the rural police ; to a good system of patrols instituted at the commencement of the dacoity season ; to the satisfactory working of a small detective staff ; to the constant looking up of released convicts and bad characters ; and to the early setting in of the rains in 1871, which had the effect of rendering dacoity a more unpleasant and dangerous pastime than it usually is.’ In serious cases, Húglí District shows a very large percentage of acquittals,—no less than 84 out of 93 cases heard in the Sessions Court resulting in discharges. Out of the ten cases of dacoity which occurred in 1871, conviction only followed in one.

The French Settlement of Chandarnagar has long offered

facilities for smuggling opium and spirits into British territory, which was carried on to such an extent that a small police staff was specially organized for the seizure of illicit spirits and opium. The Inspector-General of Police, in his report for 1871, states that this force 'worked remarkably well. The movements of the Chandarnagar smugglers were thoroughly exposed by men secretly deputed to the work, and the names and addresses of British purchasers of liquor manufactured in the French territory, together with the average quantity taken monthly by each, were made known to the Collectors of the Districts concerned. The working of the French distillery, its income and expenditure, were learned by the District Superintendent of Police through an *ex-ijáráddár*; and the knowledge thus acquired, coupled with other information subsequently obtained, resulted in a large seizure. The consequences of these successes quickly became apparent: the *ijáráddár* or farmer of the French distillery proclaimed his inability to pay his rent; dealers in British territory refused to purchase from him even if he was willing to risk exportations. The Chinese opium merchants also left Chandarnagar; and the native importers, despairing of getting opium down country, and finding their supply exhausted, purchased from the Húglí Collectorate.'

Salt-smuggling is carried on to a certain extent in Howrah. In 1870, 21 salt-smuggling cases came under the cognisance of the police, in which 21 persons were arrested and 20 finally convicted; the quantity of salt confiscated was about seven hundredweights, and the amount of fines levied, £10, 17s. 6d. In 1871, 13 cases occurred, in which 14 persons were arrested, and 7 finally convicted. The quantity of salt confiscated was about three-quarters of a hundredweight, the amount of fines levied being £15, 2s. 6d.

JAIL STATISTICS.—In 1870, there were four jails in Húglí, viz., the principal jail at the Civil Station of Húglí, the Howrah jail, and Subdivisional lock-ups at Serampur and Jahánábád. In 1872, however, the Subdivision of Jahánábád was transferred from the District. The following are the statistics of the jail population of the District for the years 1857-58, 1860-61, 1870, and 1872. The figures given for the first two years must be looked upon with caution, and accepted subject to the same explanation as that mentioned with regard to the jail-statistics in my Account of Midnapur and other Districts.

In the year 1857-58, the first year for which materials are available, the daily average number of prisoners in the jail and Sub-divisional lock-ups was 726; the total number of criminal, civil, and under-trial prisoners admitted during the year being 2472. The discharges were as follow:—Transferred, 433; released, 1538; escaped, 6; died, 192; executed, 4: total discharged, 2173. In 1860-61, the jail returns show a daily average prison population of 815; the total number of prisoners admitted during the year being 2405. The discharges were:—Transferred, 713; released, 1633; escaped, 6; died, 161; executed, 2: total discharged, 2515. In 1870, the daily average number of prisoners in jail was 632; the total admissions of the year being 1455. The discharges were:—Transferred, 107; released, 1269; escaped, 2; died, 41: total discharged, 1419. In 1872, after the District had been reduced in size by the transfer of Jahánábád, the jail figures are as follow:—Average daily number of prisoners, 425; total number of prisoners admitted during the year, 1205. The discharges were:—Transferred, 432; released, 574; escaped, 3; executed, 2; died, 37: total discharged from all causes, 1048.

The sanitary condition of the Húglí jail has much improved of late years. In 1857-58, the percentage of admissions into hospital amounted to 259·22, and the deaths to no less than 26·44 per cent., of the average jail population. In 1860-61, the ratio of prisoners admitted into hospital had fallen to 199·63 per cent., and the deaths to 19·75 per cent., of the mean jail population. In 1870, although the proportion of admissions into hospital rose as high as 308·22 per cent., the deaths decreased to 6·48 per cent. of the average prison population. In 1872, the death-rate had again risen to 9·03 per cent. The Inspector-General of Jails, in his report for 1872, makes the following remarks upon the sanitary condition and health of the jail:—‘Cleanliness has been carefully attended to, and the sanitation is excellent. Professional visitors always praise the jail; yet the mortality has been this year very considerable, 9·03 per cent. Húglí jail has never been healthy. The average death-rate of fifteen years back was eleven per cent. higher than any jail in the Bardwán and Presidency Divisions; but in all the worst years there seems to have been considerable overcrowding, whereas in 1872 there were fewer prisoners in the jail than there have been for fifteen years back. The work of the prisoners was carefully regulated, and not excessive. The Civil

Surgeon of the District, in charge of the jail, scouts the notion that penal labour has anything to do with the mortality. His own explanation is, that the prisoners newly admitted from the Húglí District were in most cases in a weak and anæmic state, and that the prisoners received by transfer from other jails were found to be in very poor health. I had occasion to see a batch sent from the Presidency to Húglí shortly after their arrival, and they were certainly in a condition of health inferior to the average of the Presidency jail. So many deaths occurred shortly after admission either from freedom or some other jail, that I think something may be said for this view; and as I have on several occasions removed healthy prisoners from Húglí to the central jails, the average status of health has naturally been reduced. Still the explanation is not quite satisfactory: the most fatal disease was not the Húglí fever, but dysentery, which is pre-eminently a jail disease. If these weakly prisoners, with the endemic fever influence upon them, had been put into a jail with bad sanitary conditions, the readiness with which they yielded to dysentery would have been natural enough; but the sanitary conditions of Húglí are described as very good, and certainly impressed me as such. The question remains a puzzling one. One thing is clear, that only good strong men ought to be sent to Húglí; and I shall be specially careful on this point, both for the sake of health, and because Húglí is one of the few jails that, under proper conditions, ought to make its manufactures pay.'

The statistics for the Howrah jail for the years 1857-58, 1860-61, 1870, and 1872, are as follow:—In 1857-58, the daily average number of prisoners in jail was 34; the total number of admissions during the year being 724. The discharges in 1857-58 were:—Transferred, 335; released, 349; died, 4; executed, 2: total number discharged from all causes, 690. In 1860-61, the average jail population was 82; the total number of prisoners admitted during the year being 544. The discharges were as follow:—Transferred, 86; released, 438; escaped, 1; died, 11; executed, 1: total number discharged from all causes, 537. In 1870, the daily average number of prisoners in jail was 103; the total number admitted into jail during the year being 879. The discharges were:—Transferred, 220; released, 635; escaped, 2; died, 5: total number discharged from all causes, 862. In 1872, after the transfer of Jahánábád Subdivision to Bardwán and Midnapur, the

Howrah jail was reduced from a separate District jail into a Subdivisional lock-up of Húglí. The statistics of admissions and discharges for that year are as follow :—Average number of prisoners in jail, 1274 ; total number admitted during the year, 608. The number discharged comprised 396 transferred ; 203 released ; and 1 executed : total number discharged from all causes, 600. The Howrah jail has maintained a higher standard of health than that of Húglí. In 1857-58, the deaths amounted to 11·76 per cent ; in 1860-61, 13·41 per cent ; and in 1870, 4·85 per cent. of the average jail population. No deaths occurred in 1872.

COST OF JAIL MAINTENANCE.—The average cost of maintenance per prisoner in the Húglí jail and lock-ups, including rations, establishment, hospital charges, clothing, contingencies, and all other charges except the cost of the prison police guard, is returned as follows :—In 1854-55, it was £4, 5s. 2½d. per head ; in 1857-58, it was £2, 18s. 8d. ; in 1860-61, it was £3, 3s. 10½d. ; in 1870, £4, 6s. 10½d. per head. The cost of the jail police guard in 1870 amounted to an average of 11s. 10¾d. per head, making a gross cost to Government of £4, 18s. 9¼d. per head. Materials are not available for showing the separate cost of the jail police guard in former years. The average cost of maintenance per prisoner in the Howrah jail, including all charges except the cost of maintenance of the jail police guard, is returned as under :—In 1854-55, it was £5, 10s. 3¼d. per prisoner ; in 1857-58, £6, 10s. 5d. ; in 1860-61, £2, 18s. 1½d. ; and in 1870, £5, 17s. 4d. per head. The separate cost of the jail police guard in the latter year amounted to an average of £1, 13s. 9½d. per head, making a gross average charge to Government of £7, 11s. 1½d. per prisoner. The Inspector-General of Jails, in his report for 1870, returns the total cost of the Húglí and Howrah jails and Subdivisional lock-ups, including police guard, at £3567, 3s. 2d. Excluding cost of police guard, which is included in the general police budget of the District, the cost of the jail amounted to £3058, 17s. 5d. In 1872, the cost of the jails, including police guard, amounted to £2629, os. 5d., and excluding police guard, to £2245, 2s. 5d.

JAIL MANUFACTURES have been carried on at Húglí for thirty years, the work performed by the prisoners contributing a considerable proportion towards the expense of their maintenance. In 1854-55, the value of prison-made articles sold or consumed for

JAIL MANUFACTURES OF HUGLI DISTRICT. 391

public purposes amounted to £328, 3s. 10½d., and the charges to £118, 9s. 2½d., leaving a profit of £209, 14s. 8d.; the average earnings of each prisoner employed on manufactures amounted to £1, 19s. 2d. In 1857-58, the total value of prison manufactures was £2024, 4s. 1½d., and the total charges £427, 15s. 9d., leaving a profit of £1596, 8s. 4½d.; average earnings of each prisoner employed on manufactures, £5, 12s. 9¾d. In 1860-61, the value of prison manufactures increased to £3859, 11s. 7½d., the total charges being returned at only £433, 9s. 1d., leaving a profit of £3426, 2s. 6d.; average earnings of each prisoner employed in manufactures, £6, 15s. 8d. In 1870, the total credits arising from jail manufactures, including sales, value of manufactured articles remaining in store at the end of the year, value of plant and machinery, etc., amounted to £3614, 13s. 8d.; the debits, including value of manufactured articles and raw material in store at the end of 1869, purchase of plant and machinery, and all charges incurred in 1870, amounted to £1790, 16s. 6d.; excess of credits over debits, £1823, 17s. 2d.; average earnings by each prisoner employed on manufactures, £5, 7s. 3d. In 1872, the total credits arising from jail manufactures amounted to £2757, 6s. 5d., and the debits to £1650, 5s. 3d.; excess of credits over debits, £1107, 1s. 2d.; average earnings of each prisoner employed on manufactures, £4, 17s. 2d. The credits for 1872 included about £600 worth of manufactured articles which remained unsold at the end of the year. The average daily number of prisoners employed on prison manufactures in Hugli jail in 1872 was 227·83, as follows:—Gunny-weaving, 177·32; gardening, 9·82; manufacturing clothing, 9·52; manufacturing oil, 20·50; flour-grinding, ·76; manufacturing blankets, 1·07; manufacturing paper, 8·04; tailoring, ·07; miscellaneous, ·73: total, 227·83.

Manufactures were formerly carried on in the Howrah jail, but since it has been reduced to a Subdivisional lock-up they have been discontinued. In 1860-61, the total receipts arising from manufactures in Howrah jail amounted to £134, 19s. 10d., and the total charges to £85, 3s. 2d., leaving a profit of £49, 16s. 8d.; average earnings of each prisoner employed on manufactures, £1, 8s. 5½d. In 1870, the total credits arising from prison labour amounted to £439, 19s. 9½d., and the total debits to £275, 6s. 0d., leaving a profit of £164, 13s. 9½d.; average earnings of each prisoner employed on manufactures, £3, 2s. 2d.

EDUCATION. — The principal educational institution in Húglí District is the Húglí College. This institution has a special interest of its own, and the following is a brief account of its foundation and subsequent history :—In 1814, a wealthy Muhammadan gentleman, named Muhammad Mahsín, owning a one-fourth share of the great Sayyidpur estate in Jessor District, died without heirs, leaving his estate, valued at £4500 a year, *in pios usus*. The estate and its management were vested in two trustees. According to the terms of the devise, the estate was divided into nine shares of £500 a year each, of which three shares, or £1500 a year, were to be spent upon religious observances at the *imámbará* or great mosque of Húglí; four shares, or £2000 a year, upon keeping the *imámbará* in good repair, and the payment of salaries and pensions of officers attached to the *imámbará*; the remainder, or £1000 per annum, was to be equally divided between the trustees, as their share. Soon after the death of the testator, the trustees quarrelled among themselves, and the management of the estate fell into great confusion. Subsequently, owing to malversation of the trust funds, Government dismissed the trustees, and itself assumed charge of the estate. The right of assumption was opposed by the original trustees, but the action of Government was upheld both by the Courts in India and the Privy Council in England. The Board of Revenue appointed the Collector of Jessor, on the part of Government, as one trustee, who was to look after the financial management of the estate; with a Muhammadan gentleman as a second trustee, to have charge of the *imámbará*.

During the long period of litigation between the original trustees and the Government, the annual income accumulated, forming a surplus fund of £86,110. This fund was devoted to founding and endowing the Húglí College in 1836. It was further increased by a portion of the original *zamíndárá*, and by the lapse of various pensions with which the estate had been burdened. The Húglí College thus established was in fact an English college, only a small portion of the sum being devoted to an Arabic and Anglo-Persian department. This establishment of a college for almost purely high class English education, founded and maintained out of a devise by a Muhammadan, has always been looked upon as a great wrong by the Musalmán community of Bengal. Although an educational foundation came technically within the purposes for which the estate was devised, the Muhammadans

perseveringly argued that it should be an educational establishment on the Musalmán plan, such as the founder would have himself approved. It is true that a small *Madrassah* or Muhammadan school is attached to the College, but the number of pupils attending it is small. In 1856-57 it contained 67 pupils, and at the end of 1871 only 54 pupils. The college itself was almost entirely monopolised by the Hindus, the Musalmáns having persistently held aloof from our system of education. Latterly, however, the number of Musalmán pupils has increased, especially within the last few years, since the question of Muhammadan education has been prominently brought forward. The following table shows the proportion of Muhammadan scholars at the Húglí College and Collegiate School for the years 1856-57, 1860-61, 1865-66, and 1870-71.

STATEMENT SHOWING RELIGION OF PUPILS ATTENDING THE HUGLI COLLEGE.

Year.	Hindus.	Muhamama- dans.	Others.	Total Pupils.
COLLEGE DEPARTMENT.				
1856-57, . . .	37	0	1	38
1860-61, . . .	59	2	0	61
1865-66, . . .	133	6	2	141
1870-71, . . .	130	21	1	152
SCHOOL DEPARTMENT.				
1856-57, . . .	423	8	5	436
1860-61, . . .	355	37	2	394
1865-66, . . .	236	43	8	287
1870-71, . . .	296	87	10	393

The Education Report for 1871-72 returns the total income of the Húglí College at £7813, 4s. 2d., including the Collegiate School; and the expenditure at £8035, 12s. 4d., also including the Collegiate School. Deducting £1128, 11s. 0d. from the receipt side on account of fees paid to the school, and £2622, 5s. 10d. from the expenditure side as the total cost of the school department, the net revenue of the Húglí College in 1871-72 amounted to £6684, 13s. 4d., and the net expenditure to £5413, 6s. 6d.

The complaints of the Muhammadans regarding the appropriation of a Musalmán endowment for the purposes of the Húglí College, gave rise to a long discussion as to the remodelling the system of Muhammadan education in Bengal. In 1861, Maulvi Abdul Latif, in a pamphlet regarding the re-organization of the Arabic department of the Húglí College, attributes one of the causes of the non-attendance of Muhammadan pupils to the discontinuance of granting free board and lodging to poor scholars, as was provided for by the original trustees, and which is looked upon as an essential part of gratis education for poor Muhammadans. Subsequently, the Maulvi's suggestion that the system should be again introduced of allowing free board and lodging, was adopted. A house adjacent to the college was purchased for the purpose, and recently a number of boys living at a distance, whose parents could not afford to provide for their maintenance elsewhere than at home, were admitted as free boarders.

In 1871, the whole subject of Muhammadan education having come under the notice of the Governor-General, the Government of India, on the 7th August, passed a Resolution, which was circulated to all local Governments, desiring 'that more systematic encouragement should be given to the classical and vernacular languages of the Muhammadans in all schools and colleges.' The Lieutenant-Governor of Bengal proposed to withdraw the greater part of the Mahsín endowment fund from the Húglí College, and to employ it in strengthening the Muhammadan departments of schools in Districts containing a large Musalmán population. The Lieutenant-Governor's proposal was approved of by the Supreme Government in its letter of the 13th June; and in order to supply the place of the sum thus drawn from the Húglí College to be specially devoted to Muhammadan education, the Government of India increased the Bengal educational assignment by an additional grant of £5000. Upon receipt of this sanction, the Government of Bengal passed a Resolution regarding the appropriation of the funds rendered available for Muhammadan education. The total sum at the disposal of the Lieutenant-Governor for special Muhammadan education in Bengal consisted of £5500 per annum from the Mahsín endowment fund, and a grant of £3800 for the Calcutta *Madrasah* and its attached schools, according to the Educational budget of 1873-74; total, £9300. Out of this sum, the Government recently established

new *Madrasahs* at Dacca, Chittagong, and Rájsháhí. The Húglí *Madrasah* was also retained; the grant for its maintenance being increased from £600 to £840 per annum.

GENERAL EDUCATION has rapidly diffused itself in Húglí District of late years, the number of Government and Aided schools having increased from 66 in 1856-57, to 204 in 1870-71, and the number of pupils in the same period from 7022 to 13,543. This is in addition to 252 private and unaided schools returned by the Inspector in 1872, and attended by an estimated number of 7521 pupils. Only 6 of these schools are inspected by the Educational Department; regarding the rest no details are available. The number of private schools is much greater than that given here, but these are all of which the department have any information. Among the Government and Aided schools, the greatest increase has been in the Aided vernacular schools, which have increased from 30 in 1856-57, to 110 in 1870-71, the total number of pupils having risen from 1739 to 5673 in the same period; and the Aided girls' schools, which have increased from 1 in 1856-57, attended by 26 pupils, to 21 in 1870-71, attended by 574 pupils. The greater part of the cost of education is defrayed by local contributions, school fees, etc. In 1856-57, out of a total cost of £20,126, 8s. 3d. for education, Government only paid £7309, 15s. 7d.; in 1860-61, the total cost of education in the Government and Aided schools amounted to £14,987, 13s. 6d., of which only £3816, 19s. 5d. was paid by the State; in 1870-71, out of a total cost of £26,776, 13s. 10d., the Government contribution amounted to only £6532, 14s. 0d. The following comparative table, compiled from the Reports of the Education Department for 1856-57, 1860-61, and 1870-71, exhibits the number of Government and Aided schools in the District in each of these years, the number of pupils attending them, the cost of education to Government, and the amount defrayed by fees or from private sources. The figures for the two earlier years must be received with caution, and as only approximately correct; in the tabular appendices to the Annual Educational Reports, the names of some schools have been given without any details of expenditure or receipts, and one without even the number of pupils. The total number of schools is correct, but the columns showing the number of pupils, cost, etc., contain this element of error. The following is the table:—

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN HUGLI DISTRICT (INCLUDING HOWRAH),
FOR 1856-57, 1860-61, AND 1870-71.

CLASSIFICATION OF SCHOOLS.	Number of Schools.		NUMBER OF PUPILS.													
			Hindus.				Muhammadians.				Others.				Total.	
	1856-57	1860-61	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71		
Government Colleges,	1	1	37	59	130	50	20	21	1	...	1	88	79	152		
Government English Schools,	5	4	1091	910	1232	84	40	91	12	4	14	1187	954	1337		
Government Vernacular Schools,	6	3	646	258	797	...	...	8	...	...	...	646	258	805
Government Institution for Special Education,	1*	1*	145	265	199	...	...	61	...	...	...	145	265	261
Aided English Schools,	22	30	3081	3671	4575	105	79	106	5	1	60	3191	3751	4741		
Aided Vernacular Schools,	30	34†	1689	1732	5232	47	26	423	3	...	18	1739	1758	5673		
Aided Girls' Schools,	1	4‡	24	50	599	2	...	...	...	...	...	26	50	574
Total,	66	77	6713	6945	12,694	288	165	710	21	5	139	7022	7115	13,549		

* The Hugli Normal School.

† The Hugli Normal School, Hugli Madrasah, and Law Class. In the previous years, the Madrasah and Law Class were included as departments of the Hugli College.

‡ No details of pupils or cost, etc., of six schools; in four of the six schools not even the total of the pupils is given.

§ Of one of these schools, no return is given of the pupils or cost of education.

EDUCATIONAL STATISTICS.

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN HUGLI DISTRICT (INCLUDING HOWRAH)—continued.

CLASSIFICATION OF SCHOOLS.	Cost to Government.			Amount realized by Fees and Private Contributions.					Total Cost.																		
	1860-61.		1870-71.	1856-57.		1860-61.		1870-71.		1856-57.		1860-61.		1870-71.													
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.												
Government Colleges,	453	16	3	800	5	6	4492	19	9	5193	7	4	5046	4	11	4865	9	10	5453	18	10	5805	14	2			
Government English Schools, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Government Vernacular Schools,	330	3	6	124	5	1	272	15	10	41	1	0	68	3	6	257	1	8	366	4	6	192	8	7	529	17	6
Government Institution for Special Education,	657	9	7	990	0	0	981	5	11	...	106	7	7	1326	6	3	657	9	7	1096	7	4	2205	10	1		
Aided English Schools,	1345	8	11	1538	17	1	2701	16	10	1649	17	1	3111	4	6	6829	2	9	2800	12	6	4862	17	9	9460	8	6
Aided Vernacular Schools,	4486	17	4	521	12	1	1346	19	10	4056	10	6	539	7	3	2320	9	1	8222	9	7	977	9	0	3717	9	6
Aided Girls' Schools,	36	0	0	73	11	0	429	10	1	43	10	0	11	9	4	477	2	4	72	10	4	83	12	7	919	15	9
Total,	7309	15	7	3816	19	5	6532	14	0	13,425	10	3	11,350	18	11	20,394	5	4	20,126	8	3	14,987	13	6	26,776	13	10

N.B.—As afterwards explained on p. 417, a great expansion took place in primary education, under Sir George Campbell's system, in the year 1872-73. The details will be found at a subsequent page (418) of this Statistical Account.

In 1871-72, exclusive of the now separated Jahánábád Subdivision, and consequent decrease of area of the District, the number of Government and Aided schools decreased to 193, and the number of pupils attending them to 11,809, exclusive of the Húglí College, attended by 142 students, but inclusive of the Collegiate School. Besides these State schools, there are also 6 unaided schools inspected by the Educational Department, attended by 554 pupils on the 31st March 1872, besides 246 other unaided schools uninspected by the Educational Department, but reported on by the police, and attended by 6967 pupils, making a total of 445 Government aided and unaided schools, attended by 19,330 pupils. The seven principal schools in the District are—(1) the Húglí Collegiate School; (2) the Húglí branch school; (3) the Uttarpára school; and (4) the Howrah school, all under the management of Government; (5) the Aided school at Konnagar; (6) the Free Church Aided school at Húglí; and (7) the Serampur unaided Collegiate School. The Inspector of the Circle states that the Serampur College—the best *mufassal* unaided college in Bengal—was founded in 1818, the entire expense of the building, about £15,000, being met by the private earnings of the Serampur missionaries, Carey, Marshman, and Ward. After the death of Dr. Marshman, the college was carried on for many years, at a heavy annual cost, by Mr. J. C. Marshman. On his departure from India in 1856, it was placed under the general direction of the Baptist Missionary Society, which has since contributed towards its support and become identified with its operations.'

The 193 schools of all classes in Húglí District which submitted returns of income and expenditure, contained 11,809 pupils, and were conducted by 563 teachers. They received from Government £5245, 10s. 6d.; collected by fees, £8143, 19s. 3d.; obtained by subscriptions or endowments, £5221, 8s. 6d. The total income of the schools amounted to £18,610, 18s. od., and the expenditure to £18,812, 14s. 3d., the excess of expenditure over income being satisfied out of the balance of the subscriptions of 1871. This is exclusive of the receipts and expenditure of the Húglí College. The average number of pupils in the schools in Húglí is considerably larger than that in other Districts, the number of pupils to a teacher being about the same as elsewhere. The average attendance in the 193 Government and Aided schools and the six unaided schools which have furnished statistics to the Education Department, was 75 per

cent. in 1872,—just one boy in every four on the rolls being always absent. With regard to the status of the pupils attending the schools, the Inspector states as follows:—‘The schools in Húglí are pre-eminently the schools of the middle class of society. This arises from the absence of *páthsdlás*, the modern village school system not having been regularly introduced into Húglí, and the uninspected village schools not giving statistics. In every average thousand pupils in the 193 Government and Aided schools and the 6 inspected unaided schools, there were, in 1872, 10 from the higher classes of society, 666 from the middle, 323 from the lower, and 1 whose parentage was not known. Two-thirds of the pupils, therefore, are from the middle classes. A thousand pupils would be distributed among the schools in the following manner:—331, or just one-third, in higher English schools; 448, or 45 per cent, in middle schools; 161 in primary schools; 51 in girls’ schools; and 9 in normal schools. It is evident that one of the chief wants in Húglí is an extension of primary education among the masses.’

I reproduce the following table of schools in 1871-72, and the subsequent paragraphs from the Annual Report on Public Instruction for that year. It exhibits the state of public instruction in a somewhat different form from that given in the previous table, and also indicates the extent to which education is carried on by the missionaries:—

RETURN OF SCHOOLS IN HUGLI DISTRICT (INCLUDING HOWRAH) IN 1871-72.
(Exclusive of the Hugli College.)

CLASSIFICATION OF SCHOOLS.	Number of Schools.	Number of Pupils on 31st March 1872.	Average daily Attendance.	Number of Masters.	RECEIPTS.						Expenditure.	Average Cost to Govt of each Pupil.	Average Total Cost of each Pupil.
					From Local Funds.			Total.	Average Cost to Govt of each Pupil.	Average Total Cost of each Pupil.			
					From Government.	Fees and Fines.	Other Local Sources.						
<i>Higher Schools—</i>													
Government	4	1291	1093	55	£	s.	d.	£	s.	d.	£	s.	d.
{ Missionary	5	566	418	121	3147	19	7	1357	8	1	4737	6	10
{ Other Christian	1	81	75	121	447	4	3	529	17	3	1283	1	6
{ Native	15	1757	1275	32	90	4	6	109	0	0	242	0	9
Unaided	3	729	322	32	1671	18	1	936	5	7	3456	13	0
Total of Higher Schools,	28	4424	3183	208	5587	4	3	3186	6	11	10,272	15	11
<i>Middle Schools—</i>													
Government { English	1	130	92	5	133	6	2	...	...	...	133	6	2
{ Vernacular	5	514	391	17	187	6	0	10	4	0	368	0	7
Missionary { English	2	67	64	...	37	3	6	51	2	6	133	4	0
{ Vernacular	6	206	143	264	44	8	0	57	8	5	169	4	0
Aided { English	22	141	96	264	135	0	2	397	4	4	406	9	4
{ Vernacular	22	1241	938	6	721	8	2	711	13	0	2183	9	0
Unaided English	2	85	74	2	750	7	10	878	5	3	2178	17	11
Unaided Vernacular	1	30	11	2	958	4	10	65	8	0	2808	15	1
Total of Middle Schools,	93	5546	4160	294	32	15	11	16	6	7	98	3	11
<i>Primary Schools—</i>													
Government (nil) . . . . .	...	...	...	...	2369	14	4	1828	7	1	6311	1	0
Aided { Missionary	29	1143	884	61	53	7	9	119	5	10	273	9	2
{ Native	4	119	101	4	26	14	2	33	7	4	96	13	6
Pathshālās (Aided)	22	678	518	18	124	14	11	38	18	7	286	7	8
Total of Primary Schools,	55	2040	1503	84	100	15	7	100	15	7	273	9	2
Total of all Schools,	176	12010	8874	500	100	15	7	100	15	7	10,545	16	13

RETURN OF SCHOOLS IN HUGLI DISTRICT (INCLUDING HOWRAH) IN 1871-72—continued.

CLASSIFICATION OF SCHOOLS.	Number of Schools.	Number of Pupils on 31st March 1872.	Average daily Attendance.	Number of Masters.	RECEIPTS.						Expenditure.	Average Cost to Govt of each Pupil.	Average Total Cost of each Pupil.
					From Local Funds.			Total.	Average Cost to Govt of each Pupil.	Average Total Cost of each Pupil.			
					From Government.	Fees and Fines.	Other Local Sources.						
<i>Primary Schools—continued.</i>													
Unaided Primary Schools,	1	41	24	2	£	£	£	£	£	£	£	£	£
Unaided Páthshálas,	245	6636	...	245	...	9 4 0	7 15 6	16 19 6	13 17 0	...	...	...	0 6 9
Total of Primary Schools,	301	8617	1527	308	260 5 9	214 0 10	199 7 3	673 13 10	670 7 4	0 0 7½	0 1 6¼	...	...
<i>Normal School—</i>													
Gov't Vernacular for Masters,	1	109	73	3	951 10 1	132 7 10	1 5 0	1085 2 11	1085 2 11	8 14 7	9 19 1½	...	...
<i>Girls' Schools—</i>													
Government (<i>nit</i>), . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
European Girls' Schools,	2	41	31	...	136 10 0	78 12 9	37 8 9	252 11 6	219 19 0	3 6 7	5 7 3½	...	...
Aided (Missionary,	7	130	90	37	58 4 0	...	58 4 0	116 8 0	116 8 0	0 8 11½	0 17 10¼	...	...
(Native) Other Christian,	2	60	25	...	23 0 3	...	30 2 9	53 3 0	48 5 10	0 7 8	0 16 1½	...	...
(Native,	11	403	236	...	203 16 0	37 4 3	223 12 10	464 13 1	468 12 3	0 10 1½	1 3 3	...	...
Total of Girls' Schools,	22	634	382	37	421 10 3	115 17 0	349 8 4	886 15 7	853 5 1	0 13 3½	1 6 11	...	...
Total of Government and Aided Schools,	193	11,809	8894	563	5345 10 5	8143 19 1	5221 8 6	18,610 18 0	18,812 14 1	0 8 10½	1 11 10¼	...	...
Total of Unaided Inspected Schools,	6	554	431	27	...	275 5 3	343 6 1	618 11 4	616 9 10	...	1 2 3	...	...
Unaided Schools not inspected,	246	6967	...	260	...	...	...	...	...	...	...	...	...
Grand total,	445	19,330	...	850	...	...	...	...	...	...	...	...	...

The foregoing table is exclusive of the Húglí College, on which, as already shown, a total expenditure of £5413, 6s. 4d. was incurred, derived from landed property, fees, and endowment funds invested in Government stock. If this sum be added, a total of £23,828 is obtained, excluding schools not under inspection.

HIGHER SCHOOLS.—‘There are,’ writes the Inspector, ‘28 higher schools in Húglí District, of which 4 are under the entire management of Government, 21 are Aided schools, and 3 are unaided. On the 31st March 1872, the Government schools had 1291 pupils, the 21 Aided schools 2404, and the 3 unaided schools 729. Each Government school contains on the average 322 boys, each Aided school 114, and unaided school 243. Hence the Government schools are three times as large as the Aided schools. Among the unaided schools is the large collegiate school of the Serampur Mission. The daily attendance in Government schools bears a higher proportion to the number on the roll than in the Aided schools. The cost to Government of each boy in the 4 Government schools was 4s. 6½d. a year, and of each boy in the 21 Aided schools 10s.

‘Some people still entertain the erroneous notion that Government schools are more expensive than other schools. A glance at the accounts of the excellent Government schools in Húglí District will dissipate the delusion. The Húglí Collegiate School is not included in the following list, as it is supported by endowment :— (1) The Howrah school, in 1871, did not touch a farthing of its assignment, and was not only self-supporting, but returned a clear profit of £4, 17s. 11d. to Government after every expense was paid. The cost to Government of each boy’s education was nothing. (2) The Aided higher school at Sibpur, a mile and a half from Howrah school, cost Government £68, 2s. od., and collected in fees and subscriptions £228, 18s. od. The average number on its rolls was 157, and the average cost to Government for each pupil was 8s. 8d. ; yet people say that Aided schools, of which Sibpur is a fair specimen, are necessarily cheaper to Government than State schools. (3) Uttarpára school contained 213 boys in 1872, and cost £672, 12s. od. The receipts were £802, 12s. od., of which sum £532, 14s. od. were derived from fees and fines, and £30 from invested savings. An endowment of £120, liberally made by the Uttarpára *zamindárs*, was met by the Government equivalent, and the school year terminated with a profit of £130,

which will be duly funded. The funded savings of the Uttarpára school now amount to £1150 invested in Government securities, and £131, 14s. od. not yet invested. The cost to Government of the education of each boy at Uttarpára was 1s. 10½d. for the whole year of 1872. The Húglí branch school in 1872 had 259 pupils, who cost Government £272, and who paid in fees, etc., £575, 2s. od., or more than double the Government allowance. The cost to Government of each pupil for the year was £1, 1s. od. The four Government schools of Húglí stand among the twenty-two best of the many hundred of higher schools in the Bengal Presidency.

'The 25 Government and Aided higher schools in Húglí cost the State, in 1872, £1499, 4s. 9d.; while they raised in fees £5357, 6s. 5d., and from endowments and subscriptions £2932, 10s. 11d. The total expenditure on these schools in 1872 amounted to £10,019, 10s. 10d., of which Government contributed a trifle over one-seventh of the whole, or 8s. 1¼d. per head. These 25 schools contained 3695 boys, taught by 176 teachers, or an average of 7 teachers and 148 pupils to each school. Each master teaches on the average 21 boys. Of the 3695 pupils, 3534 are Hindus, 134 Musalmáns, and 27 Christians; and of the 176 teachers, 162 are Hindus, 5 Muhammadans, and 9 Christians. The Musalmán teachers are all employed in the Húglí Collegiate School. The *Madrasah* attached to the Collegiate School is not entered in the returns. Regarding the social position table, 331 pupils in every 1000, or one-third, are in higher English schools. Of these 331, 4 belong to the higher classes of society, 276 to the middle, and 51 to the lower classes.

MIDDLE CLASS ENGLISH SCHOOLS.—'I think it would be well if a distinction were made in the statistical form between the English and vernacular schools of this class. The simple fact that 1599 boys in 27 English schools paid £1145, 12s. 5d. as fees, or 14s. 3¼d. each, while 3832 boys in 63 vernacular schools paid £1187, 18s. 7d. only, or 6s. 2¼d. each, shows that people willingly pay for English more than double what they pay for vernacular instruction; and this fact proves that there is so essential a difference in the schools, that they deserve to be considered separately. The 27 middle class English schools are taught by 105 teachers, of whom 102 are Hindus, 2 Christians, and 1 Musalmán. Of the 1599 pupils, 1523 are Hindus, 31 Muhammadans, and 45 Christians. The Muhammadans form less than two per cent. of the pupils.'

VERNACULAR MIDDLE CLASS SCHOOLS.—‘The 5 middle class Government vernacular schools, containing 514 boys, cost the State, in 1871-72, £170, 10s. od., or 6s. 7½d. per head. The 84 Aided middle class schools, containing 4787 boys, cost the State £1942, 9s. od., or 8s. 1¼d. per head. As to results, the Húglí middle English school stood at the head of *mufassal* English middle schools; of the 5 Government vernacular schools, Seákhálá and Húglí model schools stood first and third among the vernacular schools of Húglí, and second and fifth among all the schools of the educational Circle, and two others did well. The remaining Government vernacular school has only lately been established at Ganespur in the southern extremity of the District, where schools are almost unknown, and could not compete in the examinations. The most expensive of the Government vernacular schools is of course this poor out-of-the way school at Ganespur, each boy in it costing four times as much as each pupil at Húglí or Uttarpára, and three times as much as each pupil at Seákhálá; yet it is an expenditure which ought to be maintained, for if Government does not establish schools in the southern part of the District, no one else will. The *samíndárs* in the southern tracts maintain only the English school at Bágán and Mághkalyán, and have no vernacular or primary schools.

‘The 63 vernacular Government and Aided schools, with 3832 pupils, were taught in 1871-72 by 181 teachers. Of the pupils, 3743 were Hindus, 81 Musalmáns, and 8 Christians; the 181 teachers were all, without exception, Hindus. Somewhat more than two per cent. of the pupils were Musalmáns. It is thus evident that Muhammadans in Húglí are even less numerous in the middle class English and vernacular schools than in the higher schools; but this fact is due to the number of Musalmáns attending the Húglí Collegiate School.

PRIMARY SCHOOLS.—‘Only 55 primary schools received Government aid in 1871-72; of these, 29 are managed by missionaries. These schools are connected with the Free Church of Scotland, and lie in the northern portion of the District. The sum spent by Government on primary education was £260, 6s. od., or only five per cent. of the total sum spent on education generally in the District. These facts show incontestably, that in spite of the wonderful development of higher and middle class education in Húglí, primary education has been neglected. The *páthshálá* system, or

some similar plan, requires to be introduced and developed in Húglí. In primary schools, the statistics of Aided schools are the only ones available. The 55 Government and Aided primary schools and *páthshálas* are attended by 1940 pupils, and taught by 61 teachers. The pupils consist of 1663 Hindus, 276 Musalmáns, and 1 Christian; of the teachers, 59 are Hindus, and 2 Muhammdans. As the Free Church Mission has 21 Aided lower class schools in Húglí, superintended by Christian converts, the fact that not one village teacher is a Christian is remarkable. The Church Missionary Society has a circle of 8 primary schools in the neighbourhood of Pánchlá, and for them also there is no village teacher who is a Christian. Christian instruction in both these cases is given by the superintendents, who visit the school frequently.

GIRLS' SCHOOLS.—‘The girls' schools in Húglí number 22; they contained 634 pupils on the roll on the 31st March 1872, 568 on the roll for the monthly average, and 382 in daily attendance. The number of pupils at the end of 1871-72 was fast increasing; the attendance, however, is only 67 per cent. One girl in every three is always absent, and not only learns nothing herself, but keeps back the other two, for she causes time to be wasted in unnecessary repetition. Irregularity of attendance is the great bane of girls' schools. The best girls' schools in the District are those of Uttarpára, Báli, and Konnagar; next to these are the schools at Serampur and Ghutiá Bázár in the town of Húglí. Uttarpára and Ghutiá Bázár, the two largest schools in the District, had 49 and 53 girls on the roll respectively at the end of 1871-72.

‘The Hitakarí Sabhá of Uttarpára has published a report of its exertions in the cause of female education. The schools which compete in the Hitakarí examinations are the best schools in the District, but they were also the best before the association began its operations; the girls' schools of Uttarpára, Konnagar, and Báli have for years been mentioned as the best schools of the Circle. Still the operations of the Sabhá are exceedingly useful. The comparison of the girls' schools with the primary boys' schools give these singular results:—382 girls in average attendance receive £421, 10s. od. from Government, besides £19, 4s. od. in scholarships; 1503 boys in average attendance receive only £260, 6s. od., and no scholarships. This disparity ought to be adjusted. It should, however, be said in explanation, that in the girls' schools three-fourths of the pupils are from the middle ranks of society, and

only one-fourth from the lower ranks ; while in the primary schools for boys, two-thirds of the pupils are from the lower ranks ; and that in vernacular schools, the middle class schools expect more money from Government than the lower class. Among the 634 girls at school, 576 are Hindus, and 58 are Christians ; there are no Muhammadans. Among the 37 teachers are 2 Musalmáns and 8 Christians.'

EDUCATIONAL RESULTS: ENTRANCE EXAMINATIONS.—The Calcutta University entrance examination determines the reputation of the higher schools. As might be expected, the four Government schools rank highest, because they have the best masters and the highest reputation. The following is a statement of the number of pupils from the higher schools of Húglí District, who successfully passed the entrance examination of the Calcutta University in 1871-72 :—(1) Húglí Government Collegiate School—6 pupils passed in the first division, 15 in the second division, and 6 in the third division : total, 27. (2) Uttarpára Government school—6 pupils passed in the first, 2 in the second, and 6 in the third division : total, 14. (3) Howrah Government school—3 in the first, 4 in the second, and 5 in the third division : total, 12. (4) Húglí Government branch school—2 in the first, 4 in the second, and 2 in the third division : total, 8. (5) Konnagar Aided school—1 in the first, 4 in the second, and 1 in the third division : total, 6. (6) Serampur unaided Collegiate School—5 in the second, and 1 in the third division : total, 6. (7) Chinsurah Free Church Aided school—4 in the second, and 1 in the third division : total, 5. (8) Janái Aided training school—3 in the second, and 1 in the third division : total, 4. (9) Balágarh Aided school—2 in the second, and 1 in the third division : total, 3. (10) Sálkhiá unaided school—2 in the second, and 1 in the third division : total, 3. (11) Ilchhobá Mollái Aided school—1 each in the second and third divisions : total, 2. (12) Dogshará Aided school—1 only in the first division. (13) Chinsurah unaided Hindu school—3 in the third division : total, 3. (14) Andul Aided school—1 only in the first division. (15, 16, and 17) Amptá, Bágán, and Bhástára Aided schools—each 1 pupil in the second division : total, 3. (18 and 19) Sibpur Aided school and Bánsbáriá Free Church Aided school—each 1 pupil in the third division : total, 2. The total number of pupils from these 19 schools who successfully passed the University entrance examination was 100, of whom 20 passed in the first division, 49 in the

second division, and 31 in the third division. The junior scholarships awarded on the result of the examination were as follow:— (1) Húglí Collegiate School—1 first grade scholarship, 1 second grade scholarship, and 4 third grade scholarships: total, 6 scholarships. (2) Uttarpára school—3 second grade and 3 third grade scholarships: total, 6. (3) Howrah school—3 third grade scholarships: total, 3. (4) Húglí branch school—1 second and 1 third grade scholarship: total, 2. (5, 6, and 7) Andul, Konnagar, and Dogshará Aided schools—each 1 third grade scholarship: total, 3. Total of the seven schools—1 first, 5 second, and 14 third grade scholarships: grand total, 20. The students who gained these scholarships were all Hindus.

MINOR SCHOLARSHIP EXAMINATION.—Eighteen schools sent up 64 candidates to this examination in 1871-72; 1 passed in the first division, 12 in the second, and 25 in the third; the remaining 26 were unsuccessful. Only one scholarship was awarded, which fell to a student of Bhándárdah school. All the candidates were Hindus. For the vernacular scholarship examination, out of 135 candidates, 121 were successful, all of whom were Hindus. Of these candidates, 30 passed in the first division, 47 in the second, and 44 in the third. The Húglí schools stood in the following order according to the merit marks on the general list, at the last vernacular scholarship examinations:—(1) Seákhála model school; (2) Konnagar school; (3) Húglí model school; (4) Rishrá school; (5) Ballabhpur school; (6) Báli Barrackpur school; and (7) Serampur school. Eight scholarships tenable for four years were awarded, 4 of which fell to Konnagar school, and 2 each to Seákhála and Báli schools. Nine one-year scholarships were awarded as under:—Seákhála school, 2; Konnagar school, 1; Húglí model school, 2; and Injersháhá, Amptá, Chanditála, and Báli schools, 1 each.

PRIMARY EDUCATION UNDER SIR G. CAMPBELL.—The foregoing account of education in Húglí District was written before the Report on Public Instruction was issued for 1872-73. During that year a vast expansion of primary education took place, under a system of village teachers, inaugurated by Sir George Campbell. The following table exhibits the results of 1872-73 as compared with those in the preceding year, given in the table *ante*, pp. 400, 401 of this Statistical Account. It will be seen that the number of schools in Húglí District increased in that single year from 445 to 1152; the number of pupils from 19,330 to 28,902;

while the State expenditure only rose from £5245 to £6137. As in the previous table, this statement is exclusive of the Húglí College. In 1871-72, the net revenue of the college was £6684, 13s. od., and the expenditure £5413, 6s. 4d. In the following year, 1872-73, the total net revenue of the college was £7470, 4s. od., and the expenditure £5781, 8s. od. Adding the figures for the Húglí College to the statement, it would give a total educational expenditure of £24,226 in 1871-72, and of £24,270 in 1872-73, exclusive of the cost of unaided inspected schools, and of schools not inspected by the Educational Department. Sir George Campbell based his system on the adoption, as far as possible, of the existing indigenous mechanism of education. By small but widely-scattered grants he brought the hedge-schools under supervision, and forced a higher standard of instruction upon them. The marvellous economy of his scheme is in part due to the circumstance that the supervision is, to a large extent, conducted by the District Magistrate, who, of course, receives no additional pay for the work.

COMPARATIVE STATEMENT, SHOWING THE PROGRESS OF PRIMARY EDUCATION UNDER SIR GEORGE CAMPBELL'S NEW EDUCATIONAL SYSTEM, FOR THE TWO YEARS 1871-72 AND 1872-73.

Classification of Schools.	Number of Schools.		Number of Pupils.		Receipts.												Expenditure.			
	1871-72		1872-73		From Government.				From Local Funds.				Total.				1871-72		1872-73	
	1871-72	1872-73	1871-72	1872-73	Fees and Fines.		Other Local Sources.		Total.		1871-72		1872-73		1871-72	1872-73	1871-72	1872-73		
					1871-72	1872-73	1871-72	1872-73	1871-72	1872-73	1871-72	1872-73								
<i>Higher Schools.</i>																				
Government Schools,	4	4	1201	1403	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		
Aided,	21	22	2404	2497	1207 5 7	1224 12 0	967 10 0	3147 19 7	3420 16 0	1357 8 1	647 16 0	1575 2 10	1548 0 0	4901 15 3	4970 6 0	5078 15 7	4599 14 0	4938 10 0		
Unaided,	3	4	720	750	...	...	2209 6 10	2197 14 0	338 2 0	233 16 0	359 10 0	253 10 0	...	483 13 10	597 12 0	484 16 10	596 18 0	...
Total of Higher Schools,	28	30	4424	4550	1499 4 9	2192 2 0	5587 4 3	5956 12 0	3186 6 11	2455 6 0	10,272 15 11	10,604 0 0	10,504 6 8	10,604 0 0	10,504 6 8	10,135 2 0	10,135 2 0	...		
<i>Middle Schools.</i>																				
Govt. { English,	1	...	130	...	...	...	133 6 2	...	...	...	...	...	...	133 6 2	...	132 15 11	...	...
{ Vernacular,	3	...	514	...	170 10 7	207 2 0	187 6 0	215 4 0	10 4 0	19 8 0	...	...	...	308 0 7	...	308 0 7	441 14 0	...
Aided { English,	26	28	1469	1349	900 16 2	932 18 0	1022 6 3	912 10 0	800 14 0	960 18 0	2713 17 3	2666 6 0	2718 11 3	2666 6 0	2666 6 0	2718 11 3	2666 6 0	2666 6 0		
{ Vernacular,	58	59	3318	2972	1041 12 10	1045 0 0	1000 12 7	937 12 0	935 13 8	986 2 0	2977 19 1	2968 14 0	2977 19 1	2968 14 0	2968 14 0	2977 19 1	2968 14 0	2968 14 0		
Unaided { English,	2	3	65	103	...	...	32 15 11	43 10 0	65 8 0	124 14 0	98 3 11	168 4 0	...	98 3 11	168 4 0	98 2 0	168 4 0	...
{ Vernacular,	1	4	30	138	...	...	3 7 5	32 4 0	16 6 7	56 6 0	19 14 0	...	...	19 14 0	...	19 14 0	...	...
Total of Middle Schools,	93	100	5546	5227	2112 19 7	2245 0 0	2369 14 4	2141 0 0	1828 7 1	2147 8 0	6311 1 0	6333 8 0	6311 1 0	6333 8 0	6311 1 0	6311 1 0	6311 1 0	6311 1 0		
<i>Primary Schools.</i>																				
Aided,	55	738	1940	4,373	260 5 9	311 16 0	204 16 10	238 12 0	191 11 9	228 10 0	656 14 4	778 18 0	656 14 4	778 18 0	656 14 4	746 6 0	746 6 0	...		
Unaided,	246	859	6677	13,945	
Total of Primary Sch'ls,	301	997	8617	18,318	260 5 9	311 16 0	204 16 10	238 12 0	191 11 9	228 10 0	656 14 4	778 18 0	656 14 4	778 18 0	656 14 4	746 6 0	746 6 0	...		
Govt. Normal School,	1	1	109	110	951 10 1	959 0 0	132 7 10	117 16 0	1 5 0	5 6 0	1085 2 11	1082 2 0	1085 2 11	1082 2 0	1085 2 11	1082 2 0	1082 2 0	...		
<i>Girls' Schools.</i>																				
Aided,	22	22	634	600	421 10 3	429 14 0	115 17 0	110 4 0	349 8 4	721 14 0	886 15 7	1261 12 0	853 5 1	1261 12 0	853 5 1	864 16 0	864 16 0	...		
Unaided,	97	
Total of Girls' Schools,	22	24	634	697	421 10 3	429 14 0	115 17 0	110 4 0	349 8 4	721 14 0	886 15 7	1261 12 0	853 5 1	1261 12 0	853 5 1	864 16 0	864 16 0	...		
Total of Government and Aided Schools,	103	280	11,809	13,899	5445 10 5	6137 12 0	8143 19 1	8150 8 0	5221 8 6	5117 14 0	18,610 18 0	19,495 14 0	18,812 14 1	18,489 2 0	19,495 14 0	18,812 14 1	18,489 2 0	...		
Total of Unaided Sch'ls,	252	872	7521	15,003	The complete details are not available for these Schools.	
Grand total,	445	1152	19,330	28,902	

The totals of receipts and expenditure in this table are exclusive of the Hugli College and of unaided primary schools, for which latter no materials are available.

POSTAL STATISTICS.—A considerable increase has taken place of late years in the use of the Post Office by the people. Between 1861-62 and 1870-71, the number of letters received at the Post Offices in Húglí District has increased by nearly one-half, or 49 per cent. ; the number of letters received having risen from 190,523 in 1861-62, to 209,111 in 1865-66, and to 284,348 in 1870-71. The total number of letters, newspapers, parcels, and books received, increased from 211,028 in 1861-62, to 230,046 in 1865-66, and to 306,467 in 1870-71. The number of letters despatched from the District Post Offices increased from 157,412 in 1861-62, to 206,316 in 1865-66; and the total number of letters, newspapers, parcels, and books, from 164,784 in 1861-62, to 213,523 in 1865-66. I have not yet succeeded in obtaining the number of letters, etc., despatched in 1870-71. The Húglí Post Office more than covers its expenses, and both receipts and expenditure have more than trebled since 1860-61. In the former year, the total postal receipts amounted to £1086, 19s. 4d., and the expenditure to £811, 17s.

[Sentence continued on next page.]

POSTAL STATISTICS FOR HUGLI DISTRICT (INCLUDING HOWRAH),
FOR THE YEARS 1861-62, 1865-66, AND 1870-71.

	1861-62.		1865-66.		1870-71.	
	Received.	De- spatched.	Received.	De- spatched.	Received.	De- spatched.
Letters,	190,523	157,412	209,111	206,316	284,348	Returns not received.
Newspapers,	16,456	4,182	16,846	4,471	16,368	
Parcels,	3,704	2,227	3,480	2,124	2,330	
Books,	345	963	609	612	3,421	
Total,	211,028	164,784	230,046	213,523	306,467	...
Sale of postage stamps,	£433 18 3		£456 19 7		£1829 15 11	
Cash collections, . .	653 1 1		720 6 3		1424 17 8	
Total receipts, . . .	1086 19 4		1177 5 10		3254 13 7*	
Total expenditure,	811 17 10		1083 9 0		3108 6 5	

* Exclusive of receipts from sale of service stamps for official correspondence, which in 1870-71 amounted to £263, 19s. 9d. Service stamps were first introduced in 1866.

10d. In 1865-66, the postal receipts amounted to £1177, 5s. 10d., and the expenditure to £1083, 9s. 0d. In 1870-71, the revenue of the Post Office had increased to £3254, 13s. 7d., exclusive of £263, 19s. 9d., receipts from sale of stamps for official correspondence, which in previous years were included with the general receipts, making a total revenue from the Húglí Post Office of £3518, 13s. 4d. The postal expenditure in 1870-71 amounted to £3108, 6s. 5d. The preceding table, showing the number of letters, newspapers, etc., received at and despatched from the Húglí Post Office, together with the postal receipts and expenditure, for the years 1861-62, 1865-66, and 1870-71, is compiled from a return furnished to me by the Director-General of Post Offices.

POLITICAL DIVISIONS.—For administrative purposes, Húglí District is divided into the following four Subdivisions: (1) the Sadr or Headquarters Subdivision; (2) Serampur Subdivision; (3) Howrah Subdivision; and (4) Mahishrákhá Subdivision. The Jahánábád Subdivision, which formerly belonged to Húglí District, was separated from it in 1872, and the *parganás* composing it were transferred, some to Midnapur and some to Bardwán District. The Census Report of 1872, Appendix, Statements 1 A and 1 B, give the area, population, etc., of the different Subdivisions of Húglí District as under:—

(1) THE SADR OR HEADQUARTERS SUBDIVISION was formed in 1820, when the District was constituted. According to the Census of 1872, it contains a total area of 436 square miles, with 961 villages or townships, 98,689 houses, and a total population of 363,635 souls, of whom 267,805 or 73·7 per cent. are Hindus, the proportion of Hindu males to the total Hindu population being 47·7 per cent.; 95,378 or 26·2 per cent. are Muhammadans, the proportion of males in the total Musalmán population being 47·7 per cent.; 388 or 1 per cent. are Christians, the proportion of males in the total Christian population being 51·3 per cent.; and 64 belong to other denominations not separately classified in the Census Report, the proportion of males among them being 56·3 per cent. Proportion of males of all religions in the total Subdivisional population, 47·7 per cent. Average density of the population, 834 per square mile; average number of villages or townships, 2·20 per square mile; average number of persons per village, 378; average number of houses, 226 per square mile; average number of inmates

per house, 3·7. The Subdivision contains the five Police Circles of Húgli, Bánsbáriá, Balágarh, Pânduah, and Dhaniákháli.

(2) SERAMPUR SUBDIVISION, constituted in 1845, contains a total area of 349 square miles, 803 villages or townships, 86,793 houses, and a population of 393,864. Of the total Subdivisional population, 324,830 or 82·5 per cent. are Hindus, the proportion of males in the total Hindu population being 49·3 per cent. ; 68,386 or 17·4 per cent. are Muhammadans, proportion of males in the total Musalmán population 47·8 per cent. ; 601 or ·1 per cent. are Christians, the proportion of males in the Christian population being 53·1 per cent. ; 47 are persons of other denominations, the proportion of males among them being 68·1 per cent. Proportion of males of all religions in the total Subdivisional population, 49 per cent. Average density of the population, 1129 per square mile ; average number of villages or townships, 2·30 per square mile ; average number of houses, 249 per square mile ; average number of inmates per house, 4·5. The Subdivision comprises the five Police Circles of Serampur, Baidyabátí, Haripál, Krishnanagar, and Chanditalá.

(3) HOWRAH SUBDIVISION, created in 1843, contains a total area of 171 square miles, 298 villages or townships, 57,667 houses, and a population of 297,064. Of the total Subdivisional population, 235,973 or 79·5 per cent. are Hindus, the proportion of males in the total Hindu population being 50·6 per cent. ; 59,148 or 19·9 per cent. are Muhammadans, the proportion of males in the total Musalmán population being 51·7 per cent. ; 1570 or ·5 per cent. are Christians, the proportion of males in the total Christian population being 52·8 per cent. ; and 373 persons or ·1 per cent. belong to other denominations, the proportion of males among them being 68·9 per cent. Proportion of males of all religions in the total Subdivisional population, 50·9 per cent. Average density of the population, 1737 per square mile ; average number of villages or townships, 1·74 per square mile ; average number of persons per village, 997 (including the large town of Howrah in the average) ; average number of houses per square mile, 337 ; average number of inmates per house, 5·2. The Subdivision contains the three Police Circles of Howrah, Dumjor, and Jagatballabhpur.

(4) MAHISHRAKHA SUBDIVISION, established in 1872, contains a total area of 468 square miles, 1128 townships or villages, 79,554 houses, and a population of 433,993 souls. Of the total Subdivisional population, 357,827 or 82·5 per cent. are Hindus, pro-

portion of males in the total Hindu population, 47·9 per cent ; 76,113 or 17·5 per cent. are Muhammadans, the proportion of males in the total Musalmán population being 44·3 per cent ; 24 are Christians, and 29 persons belong to other denominations not separately classified. Proportion of males in the total population of all religions, 47·3 per cent. Average density of population, 927 per square mile ; average number of villages or townships per square mile, 2·41 ; average number of inhabitants per village or township, 385 ; average number of houses per square mile, 170 ; average number of inmates per house, 5·5. The Subdivision comprises the five Police Circles of Khánákul, Amptá, Ulubáriá, Bágán, and Syámpur.

FISCAL DIVISIONS.—For fiscal purposes, Húglí District is divided into forty-five *pargands*. The following list of them is compiled mainly from the Board of Revenue's statistics of area, land revenue, etc., and exhibits the area of each *parganá* in acres and square miles, the number of estates comprised in each, the amount of land revenue each pays to Government, its estimated population, and the Subordinate Judge's Court within whose jurisdiction it is situated. The figures should be looked upon with caution, and as only approximating to correctness. I can only reproduce the materials officially furnished, but *pargands* recently transferred from Húglí have been eliminated from the list as far as my knowledge goes. These *pargands* were in the old Subdivision of Jáhánábád ; the chief, if not the whole of them, are the *pargands* of Chandra-koná, Chitwá, and Bardá, transferred to Midnapur ; and Jáhánábád, Samarsháhi, and Bairá, transferred to Bardwán.

(1) AMBIKA contains an area of 398 acres, or ·62 square mile ; it comprises 14 estates ; pays to Government an annual land revenue of £38, 4s. od. ; it has an estimated population of 302 souls, and is situated within the jurisdiction of the Subordinate Judge's Court at Panduah.

(2) AMIRABAD : area, 8365 acres, or 13·07 square miles ; 2 estates ; land revenue, £306, 2s. od. ; population, 3854 ; Subordinate Judges' Courts at Serampur, Húglí, and Panduah.

(3) ARSHA : area, 45,769 acres, or 71·51 square miles ; 181 estates ; land revenue, £4342, 16s. od. ; population, 56,014 ; Subordinate Judges' Courts at Serampur, Húglí, and Panduah within the District, and at Kátwá in Bardwán.

(4) BALIA : area, 89,612 acres, or 140·02 square miles ; 757

estates; land revenue, £15,612, 10s. od.; population, 46,210; Subordinate Judges' Courts at Amptá, Ulubárá, Serampur, and Haripál.

(5) BALUGURI: area, 43,971 acres, or 68·70 square miles; 72 estates; land revenue, £11,540, 12s. od.; population, 48,801; Subordinate Judges' Courts at Haripál and Panduah within the District, and at Jahánábád in Bardwán.

(6) BANDIPUR: area, 10,035 acres, or 15·68 square miles; 2 estates; land revenue, £1488, 4s. od.; population, 27,528; Subordinate Judges' Courts at Sálkhiá, Serampur, and Panduah.

(7) BARAHAZARI: area, 11 acres, or ·02 square mile; 4 estates; land revenue, £1, 2s. od.; population, 102; Subordinate Judge's Court at Panduah.

(8) BASUNDHARA: not given in the Board's return, but mentioned as a *parganá* by the Collector.

(9) BHURSUT: area, 112,732 acres, or 176·14 square miles; 235 estates; land revenue, £2153, 18s. od.; population, 71,073; Subordinate Judges' Courts at Haripál and Amptá within the District, at Ghátál in Midnapur, and at Jahánábád in Bardwán.

(10) BIRH: not given in the Board of Revenue's return, but mentioned as a *parganá* by the Collector.

(11) BORO: area, 89,122 acres, or 139·25 square miles; 353 estates; land revenue, £8241, 8s. od.; population, 36,589; Subordinate Judges' Courts at Serampur and Sálkhiá.

(12) CHANDARNAGAR: area, 105 acres, or ·16 square mile; 3 estates; land revenue, £44, 14s. od.; population, 248; Subordinate Judge's Court at Húglí.

(13) CHAUMAHA: area, 76,869 acres, or 120·11 square miles; 72 estates; land revenue, £12,076, 12s. od.; population, 114,209; Subordinate Judges' Courts at Panduah, and at Jahánábád in Bardwán.

(14) CHHUTIPUR: area, 3625 acres, or 5·66 square miles; 30 estates; land revenue, £563, 4s. od.; population, 5562; Subordinate Judges' Courts at Panduah, and at Memárl in Bardwán.

(15) DHARSHA: area, 3393 acres, or 5·30 square miles; 23 estates; land revenue, £476, 6s. od.; population, 326; Subordinate Judges' Courts at Serampur and Sálkhiá.

(16) DWARBASINI: not mentioned in the Board of Revenue's statistics, but returned as a *parganá* by the Collector.

(17) GANJ SUKRABAD: not mentioned in the Board of Revenue's statistics, but returned as a *parganá* by the Collector.

FISCAL DIVISIONS OF HUGLI DISTRICT. 415

(18) HATHKANDA: area, 6262 acres, or 9·78 square miles; 9 estates; land revenue, £613, 6s. od.; population, 7292; Subordinate Judge's Court at Panduah.

(19) HAVELI: area, 23,878 acres, or 37·31 square miles; 37 estates; land revenue, £511, 16s. od.; population, 32,868; Subordinate Judges' Courts at Húglí, Serampur, and Panduah within the District, and at Jahánábád in Bardwán.

(20) HAVILISHAHR: area, 104 acres, or ·16 square mile; 3 estates; land revenue, £7, 6s. od.; population, 1049; Subordinate Judges' Courts at Ránághát in Nadiyá District.

(21) KHALOR: area, 20,043 acres, or 31·32 square miles; 16 estates; land revenue, £2012, 8s. od.; population, 57,504; Subordinate Judge's Court at Ulubáriá.

(22) KHOSALPUR: area, 3337 acres, or 5·21 square miles; 18 estates; land revenue, £686; population, 1875; Subordinate Judges' Courts at Húglí and Serampur.

(23) LALOHI: area, 52 acres, or ·08 square mile; 9 estates; land revenue, £9, 14s. od.; population, 600; Subordinate Judge's Court at Panduah.

(24) MAGANA: area, 102 acres, or ·16 square mile; 1 estate; land revenue, £25, 18s. od.; population, 76; Subordinate Judge's Court at Sálkhiá.

(25) MAHIARI: area, 76 acres, or ·12 square mile; 1 estate; land revenue, £5, 6s. od.; population, 125; Subordinate Judge's Court at Sálkhiá.

(26) MAJKURI: not mentioned in the Board of Revenue's statistics, but returned as a *parganá* by the Collector.

(27) MANDALGHAT: area, 178,756 acres, or 279·31 square miles; 244 estates; land revenue, £26,840, 10s.; population, 142,666; Subordinate Judges' Courts at Ulubáriá, Panduah, and Amptá within the District; at Ghátál in Midnapur; and at Jahánábád in Bardwán.

(28) MANDALGHAT KHARIJA: not mentioned in the Board of Revenue's statistics, but returned as a *parganá* by the Collector.

(29) MANOHARSHAHI: area, 169 acres, or ·26 square mile; 1 estate; land revenue, £9, 4s. od.; population, 102; Subordinate Judge's Court at Jahánábád in Bardwán.

(30) MUHAMMAD AMINPUR: area, 7789 acres, or 12·17 square miles; 21 estates; land revenue, £8694, 10s. od.; population, 4238; Subordinate Judges' Courts at Serampur and Panduah within the District, and at Kátwá in Bardwán.

(31) MUZAFFAR: not mentioned in the Board of Revenue's Statistics, but returned as a *parganá* by the Collector.

(32) MUZAFFARPUR: area, 23,041 acres, or 36'00 square miles; 36 estates; land revenue, £1180, 14s. od.; population, 20,717; Subordinate Judges' Courts at Ulubáriá, Sálkhiá, and Haripál.

(33) MUZAFFARSHAHI: not mentioned in the Board of Revenue's statistics, but returned as a *parganá* by the Collector.

(34) PAIGHATI: not mentioned in the Board of Revenue's statistics, but returned as a *parganá* by the Collector.

(35) PAIKAN: area, 2160 acres, or 3'37 square miles; 14 estates; land revenue, £1098, 12s. od.; population, 524; Subordinate Judges' Courts at Serampur and Sálkhiá.

(36) PANDUAH: area, 88,939 acres, or 138'90 square miles; 957 estates; land revenue, £20,782, 14s. od.; population, 57,306; Subordinate Judges' Courts at Panduah and Húglí.

(37) PATMAHAL: area, 2483 acres, or 3'88 square miles; 9 estates; land revenue, £321, 12s. od.; population, 2843; Subordinate Judge's Court at Panduah.

(38) PAUNAN: area, 28,573 acres, or 44'64 square miles; 137 estates; land revenue, £1923, 4s. od.; population, 22,574; Subordinate Judges' Courts at Húglí, Serampur, and Panduah.

(39) RAIPUR: area, 18,383 acres, or 28'72 square miles; 53 estates; land revenue, £871, 2s. od.; population, 16,453; Subordinate Judges' Courts at Panduah and at Kálná in Bardwán.

(40) RANIHATI: area, 1952 acres, or 3'05 square miles; 31 estates; land revenue, £466, 6s. od.; population, 2325; Subordinate Judge's Court at Kálná in Bardwán.

(41) SANDHIPUR: not mentioned in the Board of Revenue's statistics, but returned as a *parganá* by the Collector.

(42) SANKHA: not mentioned in the Board of Revenue's statistics, but returned as a *parganá* by the Collector.

(43) SARFRAZPUR: area, 68 acres, or '11 square mile; 1 estate; land revenue, £8, 4s. od.; population, 248; Subordinate Judge's Court at Panduah.

(44) SILAMPUR: area, 12,784 acres, or 19'97 square miles; 53 estates; land revenue, £2040, 10s. od.; population, 17,252; Subordinate Judges' Courts at Húglí, Serampur, and Panduah.

(45) SINGUR: area, 9734 acres, or 15'21 square miles; 24 estates; land revenue, £934, 8s. od.; population, 9714; Subordinate Judge's Court at Serampur.

The statistics thus furnished by the Board of Revenue return the total area of the District (after deducting the recently transferred *parganás*) at 912,692 acres, or 1425·94 square miles; 3423 estates; land revenue, £125,928, 16s. od. These figures should be accepted with caution, but, with the exception of the estimates of population, they may be looked upon as fairly approximating to correctness, as the totals show no great discrepancy as compared with those obtained from other sources. The present area of the District, after recent transfers, is returned at 1482 square miles; and the population, as ascertained by the Census of 1872, is 1,488,556 souls. Excluding transfers to Bardwán and Midnapur, the Collector, in June 1873, returned the total number of estates in the District at 3537, and the total land revenue payable to Government by their proprietors at £128,062.

MEDICAL TOPOGRAPHY.—The climate of Húglí, like that of the neighbouring Districts, may be divided into three seasons, the cold, hot, and rainy. During the cold season, the wind invariably blows from either the north or west; in the hot months, the prevailing winds are from the south; and in the rainy season, from the east. The medical officer in charge of the Serampur Subdivision returns the average annual temperature of that station for the three years ending 1869 as follow:—1867, maximum 99°, minimum 64°; 1868, maximum 93°, minimum 63°; 1869, maximum 97°, minimum 63°. In the Howrah Subdivision, the average annual temperature is returned by the Civil Surgeon as under:—Maximum 87·4°, minimum 72·9°. The average annual rainfall is about 70 inches. The Meteorological Department returns the rainfall at Húglí town in 1871 as follows:—January and February, *nil*; March, 3·13 inches; April, 3·10 inches; May, 9·54 inches; June, 15·68 inches; July, 13·82 inches; August, 19·22 inches; September, 7·70 inches; October, 4·60 inches; November and December, *nil*: total rainfall for the year, 76·79 inches. In Howrah the rainfall in 1871 was exceptionally heavy, and in some parts considerable damage was done by floods. The rainfall for each month of the year is returned by the Meteorological Department as follows:—January, *nil*; February, 0·27 inches; March, 6·00 inches; April, 6·31 inches; May, 9·83 inches; June, 23·80 inches; July, 17·01 inches; August, 12·54 inches; September, 11·04 inches; October, 6·43 inches; November and December, *nil*: total rainfall of the year, 93·23 inches.

DISEASES.—The malarious fever, which since 1861 has been raging in Húglí and Bardwán, is the principal endemic disease in the District. This fever is reported to have made its first appearance in 1824 or 1825 at Muhammadpur, then a thriving village in Jessor District. It broke out as an epidemic among a body of prisoners employed in road-making. After ravaging Muhammadpur, and completely desolating that once prosperous little town, the fever gradually spread over the whole of Jessor; subsequently, in 1856, it appeared in Nadiyá, and in 1861 in the 24 Parganáas, carrying death and destruction along with it. In the same year it crossed the Húglí, and first showed itself in the populous and thriving villages of Bánsbáriá, Tribení, and Nayá Sarái in Húglí District. In the following year it extended its ravages westward, and appeared at Panduah. In 1866, it entered Bardwán, and in 1870, Bírbhúm District; in 1871, it made its appearance in Bánkurá and Midnapur Districts. Since the first outbreak, the fever has been continually extending its ravages from village to village, and there is now hardly a spot in the entire District which has not been visited by the plague. In many villages it has been continuously present since its first appearance, and some have become almost entirely depopulated by the scourge.

In 1862, Dr. Elliot visited the affected villages in Nadiyá and Húglí. He submitted his report in 1863, and made certain proposals with a view to improve the condition of the villages;—the excavation of drains, clearing out of tanks, and the cutting down of all undergrowth in and around the dwellings of the people, being the chief measures recommended for adoption. A system of conservancy, in certain portions of the Districts affected, was initiated with a view to arrest the disease. In January 1864, a Board of Officers was appointed to inquire into all the circumstances connected with the rise and progress of the epidemic. The Board, in submitting its report, expressed an opinion that malaria was the proximate cause of the prevailing fever, and that it was in a measure due to vitiated air, deficient ventilation, polluted drinking water, and, to some extent, contagion. Subsequently, other officers were appointed to report on the subject, and in 1870 the Sanitary Commissioner of Bengal personally visited upwards of four hundred villages in Húglí and Bardwán, which had been severely affected by the fever. Various theories have been put forward as to the cause of the disease, the principal of which will be alluded to in

greater detail below. The epidemic, however, continued to rage with undiminished violence; and the Government of India, in a letter dated the 22d July 1873, directed that particular inquiries should be made into the condition of the *rayats* in the afflicted Districts, their food and clothing, the pressure of population on the soil, etc.

CAUSES OF THE FEVER.—Much diversity of opinion exists as to the causes of the outbreak and steady continuance of the disease. The following are the most prominent theories that have been put forward:—

(1) *Use of bad water* has been repeatedly stated to be the prime cause of the outbreak, and, indeed, in very many villages the water, which is applied by the people to all manner of domestic uses, is as impure and foul as can well be conceived. Tanks constructed years ago have now become shallow, and their water is impregnated with decomposing vegetable matter and filth of all kinds. Colonel Haig, in his report on the drainage of Húglí District, states that he saw people bathing in 'one filthy pool formed by a low dam about three feet high, overgrown with mosses and weeds, which was the sole water supply for all purposes of four villages. The people were bathing in it when I was there; the cattle were drinking from it; and its banks were strewed with the pots, pillows, mats, and charred remains of the corpses which were burnt there.' It has, however, been concluded that bad drinking water is not the primary cause of the fever, but a secondary or aggravating cause. The Sanitary Commissioner of Bengal, in his report of the 12th May 1870, instances several places where the water supply was comparatively pure, but in which the fever raged with great violence; while other villages, with a very impure source of water supply, have suffered in a much less degree. On this point Colonel Haig states as follows:—'I recently visited the whole of the villages on the banks of the Dámodar for a distance of thirty miles, and was everywhere assured by the people that they drank the river water, which is excellent; yet there is probably no part of the District in which the epidemic has been more prevalent or more deadly. At the same time, I have no doubt that even in these villages its fatal effects are increased from want of pure drinking water *close at hand*. The river water has to be fetched from a distance of a quarter of a mile, and over an embankment fifteen to twenty feet high. But when fever has once invaded a house,

few or none of the inmates have strength to carry a load that distance, and the consequence is they are compelled to resort to the filthy liquid in one of the nearest water-holes, which cannot but aggravate the disease.'

(2) *Proximity to marshes* has also been brought forward as a cause of the intensity of the disease in certain localities. The Sanitary Commissioner states that, although it is almost beyond question that there does exist some connection between the proximity of stagnant marshes and the more than usual prevalence of malarious fever, yet that it is only certain conditions of swampy land which seem to favour the generation of the disease, and that these conditions have not yet been determined with sufficient precision. He also illustrates cases of villages situated among swamps and marshes, which have enjoyed comparative immunity from the ravages of the fever. Colonel Haig takes the same view, and I quote the following paragraph on the subject from his report before cited:—'With regard to causation, no connection has yet been traced between the intensity of the fever and proximity to stagnant marshes, although we should certainly conclude that this would be the case if these were the only generating sources of the disease. On the contrary, there are numerous facts which are absolutely irreconcilable with such a supposition. Some of the villages on the borders of the Dánkuni marshes have been distinguished by comparative immunity from the fever, while it has raged in others which are quite free from swamps. The Collector reports that Chanditalá and the neighbouring villages at the south-west corner of these swamps have generally been considered as "exceptionally healthy." Moreover, I believe I am correct in saying that the southern parts of the District, in which the drainage is in a far worse condition than in the northern, have on the whole suffered less. I have myself seen villages situated on high ground, from which the levels sloped away gradually in all directions for a mile or two, and within which there was not, in the month of January, and plainly could not be at any other time of the year, a vestige of a swamp; yet these all had the fever, all had a dismal tale of suffering to tell. It is in vain, therefore, in my opinion, to look for the origin of the fever solely in the swamps, great or small, scattered over the country, which, moreover, occupy an insignificant fraction of its surface.'

(3) *Vegetable Decomposition*.—Another much discussed question is,

whether the density of jungle and rank vegetation so vitiates the atmosphere and impedes its due circulation as to warrant its being regarded as one of the chief causes of the great fever visitations. 'This opinion,' says the Sanitary Commissioner, 'has been met by the statements, not easily controverted, that the prevalence of the disease and the density of jungle are not invariably proportionate; that the affected Districts now, as compared with former years, do not present an unusual amount of vegetation; and that many parts of the country have been and are densely overgrown with underbush, where the villages have not been affected with fever to an excessive degree.'

(4) *Defective conservancy and general insanitation* seems to be a much more important cause of fever than either the use of bad water, or the existence of swamps or marshes, or the prevalence of jungle and rank vegetation. This question, however, is also disputed. The Sanitary Commissioner makes the following remarks:—'Some are of opinion that there exists no relation whatever between defective conservancy by bad sanitation, and the prevalence of fever. Indeed, it has been repeatedly said that the fever is known to have prevailed but slightly in some of the oldest, dirtiest, and most neglected villages, whilst it has severely affected others which were in a comparatively clean and well-kept condition. Although this may have been the case in some instances, the statement does not tally with my general experience. I am strongly inclined to think that the examples were somewhat exceptional in which dirt and neglect combined were not associated with insalubrity, although they may not always have been in exact and unvarying relation to each other. I do not mean to assert that filthy conditions of themselves will always produce intermittent fever. On the contrary, I know they will not do so. But where, besides mere rubbish and dirt, we observe general neglect and general insanitation; where the atmosphere is close and vitiated; where water is stagnant and foul; where surface cleansing is neglected, and decaying organic matter is found in abundance,—we may very generally calculate upon finding sickness; and more than this, the special ravages of disease will in most instances be found to correspond with a more than usual accumulation of obvious local causes. I do not say that the accumulation of house refuse is of necessity a source of malarious fever, nor that excrementitious matter is capable under all circumstances of generating

pestilence. It is certainly not so. But that at certain times and under certain conditions the presence of such elements favours, if it does not actually cause insalubrity, is most certain. We further well know that heat and moisture, reacting on each other, may afford an atmosphere most suitable for the production of disease. What then can we think of all the filth and vegetable decay of Bengal villages, but that it is a source of danger, and that it ought to be removed and treated in such a manner as experience teaches to be most safe?’

(5) *Defective Drainage.* — The following paragraphs regarding what is generally considered to be the primary cause of the disease, are quoted at length from the Sanitary Commissioner's report of the 12th May 1870:—‘I now come to what I believe to be the most important of all the causes of so-called malarious fever, viz., *insufficient drainage, the partial or complete obliteration of rivers, and the pernicious state of soil, air, and water which is thereby produced.* All the other causes stand for little as compared with this. Engineer officers who have given any attention to the subject, are, I believe, all prepared at once to allow that the drainage of Húglí District is now very imperfect. On this point I need only refer to the reports of Mr. Isaac, Mr. Leonard, Colonel Nicholls, Captain Garnault, and Mr. Adley.’ (A subsequent report by Colonel Haig, C.E., Chief Engineer of Irrigation Works, Bengal, dated 27th February 1873, also treats at length on this subject; and his proposals for remedying the defective drainage of the District will be explained on a subsequent page.) ‘Some years ago, Captain D. Limond, R.E., found that the Báli and other *kháls* had silted up so much as to impede the natural outflow of water from the interior of the country. They have continued to do so ever since. It is my impression and belief that serious obstructions to drainage are to be found chiefly in the vicinity of places which are or have been notoriously unhealthy. The complete closing, by an embankment (*bándh*), of the old bed of the Dámodar at Halará, close to Salimábád, has converted the Kuntí *nadí* into a dead river. The strong embankment all down the course of the Dámodar on its left bank has had the effect intended, of preventing any flood-waters from passing into the District in an easterly direction. In consequence to a considerable degree of these works, the rivers and *kháls* throughout the District have been steadily silting up. They have also, at many parts, been further obstructed by weirs or dams

thrown across them for local irrigation, fisheries, or the like, converting the old reaches of the river into a series of pools. The beds of all the watercourses are thus being gradually elevated or "honeycombed;" even rain-water is unable to flow any distance; and the usual picture under such circumstances is, as might be expected, extreme uncleanliness of soil where formerly broad and deep streams flowed.

'The mode in which the silting action of rivers in alluvial tracts goes on has been carefully observed by men of science,—with relation to the Ganges, by Mr. James Fergusson, in the *Quarterly Journal of the Geological Society of London*, vol. xix.; to the Nile, by Sir Gardner Wilkinson, in the *Journal of the Royal Geographical Society*, vol. xx.; and to the Mississippi, by Sir Charles Lyell; but the bearings of this great subject on medicine have never been sufficiently studied. On the "régime" and varying phenomena of Indian rivers (particularly on their drying up and disappearance) greatly depends the health of the people of Bengal. Given a stagnant, foul, shallow—it may be half-dried—waterway, one may generally expect to find in the persons of those residing near it the distinctive *cachexia loci* (implying debility, sickness, spleen disease, and short life). Further, as watercourses become raised, their outlets silt up and become altogether or comparatively impracticable for drainage purposes, particularly if sand-islands (*chars*) happen to form in the stream towards which they pass, as has happened in the case of the Kuntí *nadí* at Nayá Sarái and the Saraswatí at Tribení, and for a long distance down the Húglí. Such are, in my opinion, the exciting causes of the unhealthy ground conditions upon which, *primarily*, the fever of the Húglí District depends. The origin of the evil is obstruction to drainage, the drying of an impure, moist, un-aerated surface soil, and the defilement of drinking water. Where such conditions obtain, the air cannot be pure.

'The precise manner in which the unhealthy influence is generated and takes effect is yet unknown. But it is probable that the evaporation of ground moisture, leading to depression of temperature, which again alternates with intense heat, creates those extreme variations in the state of the atmosphere which are always apt to prove injurious to man. Whether, above and beyond this, there is any specific noxious element or property of matter in action, remains still undetermined. The most important fact to remember is, that the remedy lies in effectual drainage, and in the opening out either

of dead rivers or of new channels of overflow. The experience of many countries has established this beyond all dispute; and it has frequently been observed that diminution of malarious disease has kept pace with the improvement of wet land.

'At present the channels of the Káná and Kuntí rivers present many miles of damp, naked ground, and a series of shallow pools of most impure water. They are merely broad ditches, the sides of which are greatly polluted both with vegetable and animal decomposition. The Saraswatí river is in very much the same condition, although perhaps not so defiled as the Kuntí. The Ghiá *nadí*, on the other hand, which has not been closed, and through which there is still a natural although not a very great flow, presents a pleasing contrast to the dead rivers above named. Indeed, from the point at which the Kuntí and the Ghiá unite, many of the abominations which characterize the dry channel are lost sight of, and a distinct increase of salubrity is observable.

'I desire carefully to avoid anything like hasty or unsound generalizations, yet I think it cannot reasonably be disputed that there does in very many instances exist a general relation between the extreme unhealthiness of places and the proximity of old river channels in a half-dry, filthy state. With very many of the natives themselves, it is a commonly accepted opinion that the immediate vicinity of obliterated waterways coincides with the severest manifestations of disease, whilst at the distance of two or three miles from such half-dried channels, the rates of sickness and mortality manifestly decrease. I do not mean dogmatically to assert that the unhealthiness of every place in the District is to be accounted for in this manner,—very far from it. Yet the correspondence between more than usual sickness and the proximity of a half-dry, slimy river bed, is much too often observable to permit of its being passed over in silence. It is a matter of history that the ravages of fever which occurred at Kásimbázár some sixty years ago were coincident with an alteration in the course of the river Húglí; a similar fact has often been noted with reference to ancient Gaur. The variations of public health at Purniah and other places, in past times, were, I believe, attributable to like causes. The Fever Commission of 1864 did not fail to draw attention (par. 34) to the fact that in past years great sickness and mortality was observed to occur in the low, ill-ventilated villages lying along particular *nálás*, such as the Báeng *nadí*, the upper Nabagangá, the Bhairab, and the

Chitrá.] In European countries the same thing has often been observed.

‘On the whole, I am inclined to think that the majority of the places which have suffered most severely from the prevailing fever in the Húglí District are situated either near old half-dried riverbeds, or in positions where localized obstructions to drainage are without difficulty to be detected. Some, perhaps, might be inclined to say (as I myself was at one time) that Panduah and Dwárbásini, where terrible mortality occurred, have not the necessary conditions near them. But on close inquiry this will be found not to be the case,—great obstruction to drainage having occurred at both places, and each of them being situated close to the almost obliterated channel of what must once have been a good-sized river. The Kásái and Kedármatí *nadís* are now almost unknown even at the places through which they formerly passed, yet their outline is to be traced, corresponding to deep interrupted ditches, in close proximity to which fever prevailed with great severity.

‘Those who desire to see characteristic pestilential spots situated close to stagnant Indian rivers (which have not inappropriately been termed “the last receptacles of all that has ceased to live”), should visit any of the following places:—Parámbu, Sháhbázár, Syámpur, Jainagar, Puriárpur, Tengrá, Balghar, Kenkrákulí, Chándbátí, Dipai, Gobindpur, Kholsiní, Dingalhátí, Jagannáthpur, Púbpárá, Prasádpur, Chakpur, Subalpur, Jotmádhav, Bailiá, Ajothyá, and Khánpur. All these localities have been the scenes of terrible desolation; and the accumulation of insalubrious conditions around them urgently demands attention. I beg anxiously to bring this to the notice of the Government.

‘The river-bed adjoining all those places is half dry and choked with decaying vegetation; the ground towards the edges is poachy and damp; sluggish, stagnant pools appear in line; the banks are not only defiled with ordure, but the burning of bodies is practised all along its limits. Such cremation is in many cases only partial, and it is very commonly conducted close to footpaths; human bones lie scattered along the line of the river; the cloths and rags with which the dead were covered remain undestroyed; and the amount of past mortality can be estimated with tolerable accuracy by the number of earthen vessels (*kalsís*) which strew the ground, and which at the time of the funeral ceremony contained the water with which the fire was extinguished. The Kuntí or Káná *nadís* (as the

case may be) near the places above named are in a most objectionable state, and much require clearing. At sunset, a heavy, foggy, stagnant, and oppressive atmosphere pervades such localities, and a most nauseous putrescent smell is evolved from the ground around. It is scarcely to be wondered at that death should revel at such infamous spots, where so many potent causes of disease are present and in actual operation before our eyes. I am of opinion that the villagers, and the landowners particularly, should be compelled to prevent the inexcusable defilement of the river banks which now goes on. With regard to cremation, much neglect occurs which might easily be obviated. The people are strangely and culpably indifferent in this respect.'

With regard to the question of improving the drainage of Húglí, Mr. Adley, C.E., was appointed by Government to determine 'whether want of drainage had caused or intensified the prevailing fever;' and if so, how it could be rectified. Mr. Adley submitted two reports to Government, dated the 25th June and 10th September 1869, and the principal conclusions he came to were the following:—(1st) That the District did stand in much need of drainage; (2d) that this in a great measure represented the cause of the fever scourge; (3d) that the rivers and *kháls* had seriously silted up and deteriorated; (4th) that in an engineering point of view there was no difficulty about the drainage question; and (5th) that if properly conducted, the measures ought to be largely remunerative. Mr. Adley recommended the reclamation of the Dánkuni, Kátliá, and Rájpur swamps; the deepening of the *kháls* and improvement of their embouchures; the re-opening of the Kána Dámodar at Salm-ábád; the adoption throughout the District of 'high and low level drains, to serve the treble purpose of drainage, irrigation, and navigation;' and the introduction of general sanitary measures.

A portion of Mr. Adley's scheme—that for draining the Dánkuni marsh—was approved of by Government, and the works are now in course of construction. These works consist simply of drainage cuts, furnished with self-acting tidal outlet sluices,—the total estimated cost for the reclamation of the swamp (the area of the catchment basin of which is about 60 square miles) being £48,000. Subsequent to the date of Mr. Adley's report, Colonel Haig was appointed to make an engineering survey of the District. In his report, dated 27th February 1873, he proposed that the Dánkuni drainage scheme be extended to other tracts in the southern or tidal

portion of the District. These additional drainage schemes proposed to be adopted are as follow. I quote from Colonel Haig's report :—(1st) The Amptá scheme for the drainage of 84 square miles of country in the southern part of the western drainage basin. This scheme will comprise (1) a catch-drain, to intercept the drainage which now comes down from the northern part of the basin, and to turn it into the Ranábád *khál*; (2) arterial drainage cuts to lead the local drainage waters out into the Húglí and Dámodar; and (3) outfall sluices with self-acting shutters to keep out the tide. The cost, at £800 per square mile, will be $800 \times 84 = \text{£}67,200$. (2d) The next is the Rájápur scheme, comprising the works for the drainage of the tidal portion of the central drainage basin, the area of which is 90 square miles. The works will be of the same class as those specified in the case of the Amptá scheme, the catch-drain in this instance extending across the north-east border of the tract, and intercepting and leading into the tidal portion of the Saraswatí the drainage of 177 square miles of the upper portion of the basin. The cost, at £800 per square mile, will be £72,000. There are three great *jhils* or swamps to be drained, of which alone account is taken, omitting any smaller ones that may exist. These are the Rájápur, Pánchlá, and Bara *jhils*. (3d) The third or Howrah scheme is for the drainage of the lands immediately south of those for which drainage works are now being carried out in the Dánkuni swamps. They lie between the Báli *khál* on the north, the Húglí river on the east and south, and the Saraswatí on the west. The total area is 48 square miles, the works for which, on the above data, would cost $\text{£}800 \times 48 = \text{£}38,400$. The cost will not exceed this, and may be less, depending upon the actual extent of drainage required. There is no doubt that there is a large extent of most noxious swamp in this section, extending up to the suburbs of the town of Howrah, to the health of which, if there be any truth in the malaria theory, these stagnant marshes cannot but be most prejudicial.'

The table on the following page, taken from Colonel Haig's Report, illustrates the above proposed drainage schemes :—

[TABLE.

PROPOSED DRAINAGE SCHEME FOR HUGLI DISTRICT.

	Total area of Catchment Basin.	Probable cost of work.	Areas more or less deteriorated in value from defective Drainage.
Amptá Scheme, . . .	Sq. miles. 84	£ 67,200	Acres. 10,300
Rájápur Scheme, . . .	90	72,000	30,300
Howrah Scheme, . . .	48	38,400	9,000
Dánkuní Scheme (in course of execution), . . . }	69	48,000	18,200
Total,	282	225,600	67,800

With regard to improved drainage as a remedy for the fever now ravaging the District, Colonel Haig states that he does not look upon drainage *per se* as a complete cure, or even as the principal means of cure. 'All that it can do,' says Colonel Haig, 'will be to remove one source of malaria in the swamps, and to a certain extent diminish the excessive humidity of the soil, which last is perhaps the most important exciting cause of the disease. All experience, and the distinctly malarious type of the fever itself, —notably the almost invariable presence of splenic complications,—tend to the belief that, despite certain facts which it is difficult to reconcile with the theory, the fever owes its origin in some way or other, directly or indirectly, to the above or to similar causes. But in a rice-growing country drainage cannot wholly eradicate these. It can probably do nothing more than modify the most important of them, and that only in a moderate degree; and it cannot in any way touch those other causes which are wholly distinct, and to which I think must be attributed the great mortality which has attended the present epidemic. Unless some great and fundamental change takes place in the present conditions of agriculture and population, the elements of epidemic disease will, I believe, remain, though it may be with diminished force, in spite of drainage; and in the absence of other remedial measures, may again lead to similar outbreaks, and even reproduce a similar mortality.'

For a long time the railway embankments were said to be a cause

of fever, by shutting up the drainage of the country, and so creating swamps and super-saturating the soil. 'But,' says Colonel Haig, 'it was conclusively shown, in the case of the East Indian Railway, that between Calcutta and Bardwán ample waterway is provided. Further, if the railway were the cause, the fever would have been most prevalent and most fatal along it, and more so on the side on which the drainage was intercepted than on the other,—worse close to the railway than away from it. The contrary is notoriously the fact. The fever has been decimating tracts fifty miles from the railway, and separated from it by the Dámodar.

'Roads then were charged with the same offence, even the few little District roads of Húglí. No doubt there has been an inattention to drainage in the alignment and construction of these roads. The works appear generally to be designed by the Collector, and carried out by the Superintendent of Police; and it is not surprising, under such circumstances, that serious mistakes should be made. But, upon the whole, I have generally observed that if one of these roads obstructs drainage, the *rayats* promptly make a cut through it; so that I do not believe that any serious or extensive accumulations of stagnant water take place. And certainly the fever has not been a bit worse where there are roads than where there are none.

'One great change, and only one, has taken place in the physical condition of the Húglí District, within, or nearly within, the period in which the fever has been so fatal. A few years before the fever commenced, the embankments on the left bank of the Dámodar were completed, the head of the Káná *nadí* was closed, and the floods which up to that time used to sweep over the whole District were finally excluded. It is easy to see that this change must have been attended with some very widespread and important effects. The degree of saturation of the soil must have been diminished, which was so far beneficial; but, on the other hand, the land was no longer renewed by the annual deposits from the most richly silt-laden river in Bengal, and the village tanks were no longer annually supplied with fresh water from the river. Further, the villages on the banks of the Káná *nadí* (and I believe the Káná Dámodar also), which had always received their water supply from the Dámodar, and therefore had no tanks, were now wholly cut off from any source of supply, save what water they could retain by damming up the *nadí*, and so storing up the scanty drainage which falls into it. To the loss of the silt deposit the *rayats* to this day generally ascribe

a diminution in the fertility of the soil, and there can be no question that this must have been the case. The loss of the former supply of good water to the village tanks and to the villages along the Káná *nadí* must also have been an unmitigated and most serious evil.

‘With singular perversity of misapprehension, however, the embanking of the Dámodar has been popularly charged, not with these effects, but with that of causing the general silting up of all the natural drainages of the District; whereas it was in reality the measure which at once and finally arrested that process. So long as the muddy floods of the Dámodar swept over the country, the silting up of the drainages proceeded unchecked, and their eventual complete obliteration was a mere matter of time. The exclusion of the floods has preserved to the country so much of its drainages as were left. A few years more of inundation evidently would have effaced all vestiges of the Káná in its lower part. Unfortunately, when the head of this river was closed, no provision for a supply of good water to the villages dependent upon it was made, and the people have therefore good reason to complain of a step to which they can at least trace some of the evils under which they labour.

‘The embankment of the Dámodar, however, cannot have been a primary cause of the fever. If the loss of the annual inundation had any such effect, we should expect to find the health of the country on the right bank improved, as its embankments were removed when those on the left bank were made, and the floods now spread over 380 square miles of its surface. Fever is, however, just as prevalent there as elsewhere; and I was told by the people that there was no difference in this respect between the inundated and uninundated portions.’

(6) *Poorness of Food; bad hygienic conditions; excessive Population.*

—I now come to the last of the alleged causes of the outbreak and its continuance. The Sanitary Commissioner thinks that the people use too much carbonaceous and too little albuminous food. Dr. Saunders, Deputy Inspector-General of Hospitals, in a report, dated May 1872, is also of opinion that the food consumed by the labouring population is insufficient to enable them to maintain themselves in a good hygienic condition, and to resist the climatic and other influences which excite to disease. He is of opinion that a common labourer cannot afford the food that is absolutely required to maintain him in health. The question

of the pressure of population as compared with the means of production of the soil is an important one as bearing on the fever now ravaging the District, and Colonel Haig goes into the question at considerable length. The following paragraphs on this subject are quoted from his report :—

‘ Even after the population has been reduced by the excessive mortality of the past ten years, the average of the whole district is 1045 persons per square mile. This, however, includes the large towns on the banks of the Húglí. If we take only the *thánds* removed from the river, or at least not containing great towns which may fetch their food supplies from other Districts, we obtain the following results :—

Thána.	Area in square miles.	Population.
Bánsbáriá,	47	41,309
Balágarh,	91	60,955
Panduah,	115	77,332
Dhaniákháli,	121	116,501
Haripál,	138	111,689
Krishnanagar,	71	69,280
Chanditalá,	71	94,141
Dumior,	84	119,037
Jagatballabhpur,	75	80,243
Khánákul,	144	135,192
Amptá,	101	110,374
Syámpur,	87	60,423
Total,	1,145	1,076,476

‘ These figures show an average of 940 persons per square mile. Taking the total cultivable area at 520 acres per square mile (which it has been proved to be in Midnapur), we may, I think, safely assume that the average yield per acre of the whole area of the District, including lands under swamps and lands injured by inundation, cannot in average years exceed 20 maunds of paddy. A population of 940 per square mile is at the rate of 1·8 persons per cultivable acre ; and 10 maunds or 800 lbs. of rice would give an allowance of 1·2 lbs. per head per day, which is not sufficient for health. But it is certain that all the food produced in the District is not consumed in it. Some is exported,—how much is

not known. It is sold in exchange for cloths, brass vessels, salt, etc. ; so that it would seem that the daily allowance per head may not be more than a pound.

‘If the land cannot feed the population upon it, the remedy must lie either in reduction of population by emigration, or in increasing the productive powers of the soil by irrigation. For the latter remedy, at least, there is a clear and open field ; and I am convinced that by its means the yield of the land might be nearly doubled. The facilities for leading water off from the Dámodar are extraordinary ; and we have in the Káná Dámodar and Káná *nadi* two ready-made distributaries running through the heart of the District, and commanding almost every acre of it. It is only necessary to turn the Dámodar water into these channels, and it might be led anywhere.

‘If irrigation were introduced along with drainage, the difficulty of carrying out the latter to its full extent would disappear ; the rice fields, which are now, except in heavy rains, fetid swamps, would be cleansed and refreshed by a constant flow through them of fresh river water ; the fertilizing silt of which the land was deprived when the Dámodar was embanked would be restored to it, and the yield probably doubled ; and there would be a plentiful supply of good drinking water for every part of the District. In fact, combine irrigation with drainage, and you have done all it appears to be within the power of man to do to remove every tangible and assignable cause, direct or indirect, of the epidemic which threatens to depopulate the country. With a secure water supply, it would be possible to introduce some very important modifications of the present system of agriculture, which would remove those features of it which are most injurious to the public health. It would be possible, for instance, to reserve a certain strip of land immediately around each village for dry weather crops, and so to keep it drier during the autumnal and winter months, when the intense evaporation causes those great variations of temperature which are believed to be one of the most powerful exciting causes of fever. It might be possible, with the same view, to introduce descriptions of rice requiring a shorter period to mature than the present *áman* crop. Any attempt of the kind, so long as the crop depends upon the natural rainfall only, would be hopeless, as long experience has taught the Bengal *rayats* that the *áman* is on the whole best adapted to the peculiarities of the climate. In fact, without some

such regulation of the water supply of the District as is to be obtained only by a combination of irrigation with drainage, any improvement that may be attempted will have but very partial effect.'

Colonel Haig's scheme for irrigation consists in taking from the Dámodar, at Pallah, water sufficient for the supply of fifty thousand acres of rice land, and leading it a distance of about twelve miles into the two great natural distributaries, the Kána *nadí* and Kána Dámodar. The estimated cost of the undertaking, including establishment, land, and all contingent charges, is £60,000. The weir at the head would be a small work, only three feet high. The water thrown into the Kána Dámodar would flow by that channel forty miles to the south, irrigating both sides of its course. That turned into the Kána *nadí* would also irrigate throughout its whole course, and could, by a short and shallow cut of four miles, be led into the Saraswatí, by which it would flow to within six miles of the town of Howrah, into which, whether for municipal purposes or for docks, it could very easily be conducted. All the villages along the Kána *nadí* and Kána Dámodar, which, since the closing of the head of the former, have been deprived of their water supply, would also be amply furnished by this means with more water than they could consume. A portion of this scheme, viz. the opening of the head of the Kána *nadí*, has already been carried out in a modified form, and at an estimated expense of only £1200. The work was most successfully carried out, and the supply of water came at a most opportune time for the people, whose tanks were nearly dried. The water is largely used for irrigation purposes.

NATURE OF THE FEVER.—Having now mentioned the principal of the different circumstances which various authorities have brought forward as causes of the fever, and also the measures proposed or in course of execution for remedying the state of affairs, such as improved drainage, irrigation works, etc., it remains briefly to notice the nature of the disease itself, the mortality it has caused, and the relief measures adopted by Government. The Inspector-General of Hospitals, in his Report on the Charitable Dispensaries of Bengal for 1871, describes the disease as 'but an aggravated form of the ordinary malarious fevers of the country and season.' He states: 'The symptoms are indeed more violent, the prostration more rapid and grave, the complications earlier in their appearance and more severe in their character, and the sequelæ more common and serious. Still there is nothing to show that either symptoms, complications,

or sequelæ differ in any other respect than in degree from the usual autumnal malarious fever of the province. As might be expected, the individual, as long as he remains exposed to the same conditions which originally caused his malady, is liable to repeated attacks, which are called, perhaps improperly, relapses. These are not so acute in their character as the original onset of the disease, but they add to the mischief already done, and step by step the constitution is undermined and the seeds of fatal organic disease implanted. It would be strange if repetitions did not occur; and it is too much to expect quinine or any other drug to prevent their accession, or cure the disease once for all. The more promptly and efficiently, however, each seizure is dealt with, the less compromising its effect; and thus the unhealthy season may be tided over in comparative safety: this is the utmost that can be expected from medical treatment. Another peculiarity of the severe form of fever is that, under whatever circumstances or after whatever interval these repetitions occur, the subsequent attacks partake of the malignity of the original seizure. The disease is therefore a doubly formidable one,—severe in its primary incidence and in its secondary manifestations, and life is imperilled both by the violence of the first attack and the sapping effects of repeated seizures. The amount of sickness and mortality thus caused has been such that neither description nor statistics fully represent it. Exact and reliable statements regarding the proportion of the population which succumbs to the disease have not been furnished; but the loss of health and life which a community, subjected during successive seasons to the influences causing this fever, undergoes, must be very appalling. The estimate that three-fourths of a village population has been prostrated and disabled by the onset of the malady is a very common one; and the mortality of a recent outbreak is said to amount in a few months to one-third of the original strength of the community, and in the long-run amounts to one-half or more. On this subject more exact information will doubtless be forthcoming in the reports concerning the year now current. Dr. Elliot mentions, in his remarks on the Chakdighi dispensary, that many of the villages in the neighbourhood had lost, during the four years in which the fever prevailed there, from one-half to two-thirds of their population. The Sub-Assistant Surgeon writes of villages being completely depopulated, and states that hardly a person escaped the disease,—a healthy subject being a remarkable phenomenon.'

RELIEF OPERATIONS.—Government relief has been granted to the sufferers on an extensive scale. Fever dispensaries were established at the larger centres of population, and an itinerant dispensary in the rural tracts, moving about from village to village, wherever the fever was severe. In 1869, 14 dispensaries were in operation, at which 48,744 persons received gratuitous medical aid, at a total cost to Government of £700. The Dispensary Report for 1871 gives the following statistics of five special fever dispensaries (including Jahánábád), as follows:—Number of patients treated—new fever, 8076; old fever, 10,411; other causes, 4618: total, 23,105. With regard to the mode of treatment, the Civil Surgeon of the District reports that quinine, although it does much to check the accession of fever as an anti-periodic, is ill suited to the constitution of the ill-fed labouring population. He is of opinion that the poorer classes are more amenable to treatment by native than by European medicines. He states that the former, if prepared strictly after the directions given in Hindu medical works, are of equal value with the costly European remedies. What appears to him to be the cause of failure is, a wrong application of the remedial agents, the shortcomings, carelessness, want of energy, and fraud on the part of the *habirdás*, or native practitioners.

MORTALITY.—The ravages committed by the fever have been dreadful; but no really accurate statistics are available showing the extent of mortality. In a memorial from certain inhabitants of the District, praying for relief from Government, they state that the Epidemic Commissioners appointed in 1863-64, in the course of their inquiries, 'saw scores of corpses, mangled and dismembered by dogs, jackals, and vultures, lying in the streets of Dwárbásínf and other villages, in which the ravages of the epidemic had then but newly commenced.' The Dispensary Report for 1870 returns the number of deaths in that year in Serampur Subdivision at 3635, by far the greater majority being furnished from the fever cases. For the whole District, the total number of deaths reported by the police during the year amounted to 4507, of which 3088 were due to fever. For the following year, 1871, the Dispensary Report gives the following figures:—Serampur Subdivision—total deaths, 5632, of which 4336 were from fever. For the whole District, the police returns gave the total deaths at 7177, of which 5865 were from fever. These figures, however, cannot be relied upon; and the Civil Surgeon states that the returns received from the police stations are

so meagre that no correct data can be arrived at, and would only lead to erroneous conclusions. Unless particular spots are appropriated in each village for burning or burying the dead, and a proper registration of the bodies taken to such places carried out, the Civil Surgeon states that there can be hardly any efficient check on the accuracy of the mortuary returns. In the memorial presented to Government in 1871 by certain influential native inhabitants of the District, the memorialists state that they had 'endeavoured to collect the mortuary returns since the outbreak of the fever for sixty villages, and that the result tends to show that in some instances the deaths amount to more than one-half of the population before the outbreak, and in many others to not less than one-third.'

I reproduce the list appended to the memorial, but the figures must be accepted with caution. The mortality may perhaps have been over-estimated; and in one case, that of Panduah, it has certainly been so. According to the following statement, Panduah contained 6961 souls before the outbreak, while in 1871 the population had decreased to 1739; the total number of deaths between 1863, when the fever first appeared, and 1871, being returned at 5222, or 75 per cent. of the population before the outbreak. The Census Report of 1872, however, returned the population of Panduah in January of that year at 3690 souls.

STATEMENT SHOWING THE MORTALITY DUE TO FEVER IN
CERTAIN VILLAGES OF HUGLI DISTRICT.

	NAME OF VILLAGE.	Population before the Fever.	Number of Deaths.	Population in 1870-71.	Year in which the disease appeared.
1	Sháhbázár,	3519	2176	1343	1868
2	Birámpur,	997	574	423	"
3	Báliguri,	1937	1284	653	"
4	Syámpur Jainagar,	2123	1279	844	"
5	Agarasarpára,	935	479	456	"
6	Dwárháta,	4182	3045	1137	1867
7	Chándbáti,	1253	722	531	"
8	Dipái,	995	582	413	"
9	Alá,	1155	635	520	1869
10	Mahmúdpur,	1527	937	590	"
11	Samaspur,	3864	2737	1127	"
12	Káotá,	1940	468	1472	1862
	Carry forward,	24,427	14,918	9509	

MORTALITY OF THE HUGLI FEVER.

437

STATEMENT SHOWING THE MORTALITY DUE TO FEVER IN CERTAIN VILLAGES OF HUGLI DISTRICT—*continued.*

	NAME OF VILLAGE.	Population before the Fever.	Number of Deaths.	Population in 1870-71.	Year in which the disease appeared.
	Brought forward,	24,427	14,918	9509	
13	Sháhganj,	295	102	193	1862
14	Gari Almárbágh,	341	127	214	"
15	Ujitnagar,	182	71	111	"
16	Amírkhál,	277	107	170	"
17	Mírárhát,	275	120	155	"
18	Khámárpára,	386	163	223	"
19	Bánsbárá,	2165	700	1465	"
20	Sibpur,	260	95	165	"
21	Tribení,	1932	645	1287	"
22	Nayá Sarái,	2377	1140	1237	"
23	Dwárbásini,	2743	1959	784	1864
24	Narichá,	550	350	200	1863
25	Chakpur Mohanbáti,	483	86	397	1869
26	Megsar,	982	662	320	1865
27	Panduah,	6961	5222	1739	1863
28	Harhmána,	326	41	285	1865
29	Karpára,	327	111	216	"
30	Bejpára,	655	134	521	"
31	Nagarpára,	232	73	159	"
32	Bázarpára,	128	34	94	"
33	Dakshinpára,	400	118	282	"
34	Mírápára,	289	68	221	"
35	Balágari Nátágari, etc.,	9755	2271	7484	1866
36	Kumárganj,	1136	435	701	"
37	Kendur,	613	186	427	"
38	Makarpól,	577	70	507	1868
39	Dhaniákháli,	1112	697	415	1869
40	Harpur,	870	500	370	"
41	Míránagar,	2525	516	2009	"
42	Kalorá,	691	400	291	1863
43	Ruá Napára,	250	170	80	"
44	Bátuá,	2000	1200	800	"
45	Barrackpur,	200	100	100	"
46	Debánandpur,	1800	1000	800	"
47	Kálidángá,	300	150	150	"
48	Pánchrakhí,	300	175	125	"
49	Krishnapur,	451	133	318	1867
50	Hamídpur,	256	49	207	1868
51	Kamiri,	511	217	294	"
52	Kántagaría,	500	382	118	1866
53	Srírampur,	200	90	110	"
54	Nayápára,	475	225	250	"
55	Kanáidebpur,	655	324	331	1864
56	Rámnagar,	358	86	272	1865
57	Rájhát,	2500	1400	1100	1863
58	Asuá,	187	68	119	1865
59	Nialbái,	267	65	202	"
60	Parambu,	3125	2169	956	1869
	Total,	78,607	40,124	38,483	

NATIVE PRACTITIONERS.—The drugs in the pharmacopœia of the *kabirāj*, or native medical practitioner, are derived alike from the vegetable, animal, and mineral kingdoms. Vegetable medicines are procured from the bark, root, leaves, flowers, fruit, seeds, juices, gum, and wood of plants. Their effects are said to vary with the period at which they are gathered. They are never procured from plants growing in jungly localities; and lucky days and hours are generally consulted by the *kabirāj* in collecting them. Medicines derived from the animal kingdom are prepared from skin, hair, nails, blood, flesh, bones, fat, marrow, bile, milk, and dejections such as urine and dung. Medicines prepared from bones, skin, hair, and nails are used as fumigations. Urine is always given internally, as a laxative and tonic in spleen and liver diseases, leprosy, jaundice, and anasarca: the urine of cows and rhinoceroses is always preferred. Fat and marrow are used as ointments, and also given internally in cases of weakness. Blood is given in cases of loss of blood, and flesh mixed with other medicines in cases of weakness, phthisis, and nervous diseases. Bile is considered as a stimulant. Medicines derived from the mineral kingdom consist of metals and salts. Of the latter, rock salt, borax, *billaban*, and an impure soda are the principal. In former days, iron and tin were the only metals used in medicine by native physicians, but in more modern times, mercury, gold, silver, copper, lead, and zinc have come more or less into general use. Mercury is extensively used, and Hindu writers on *Materia Medica* describe various processes of purifying it. Preparations of gold are said to increase memory and restore the power of manhood. Mercury, silver, and lead are regularly mixed with gold, and the manner in which the gold is prepared invariably turns it into an oxide. It is considered a valuable remedy in intermittent fevers, spleen diseases, gonorrhœa, and consumption. Silver is worked up with sulphur and lemon-juice over a furnace at a high heat. This preparation is acid, cooling, and astringent, and is given to promote appetite, strength, digestion, and colour of skin. Copper, worked up with sulphur, common salt, and lemon-juice over a furnace, is used in fevers, diarrhœa, spleen, and diseases of the liver and blood, such as leprosy, piles, etc. Preparations of lead are used in cases of diarrhœa, gonorrhœa, leprosy, and ulcer; and those of tin in obesity, worms, and jaundice. Zinc is used in the same manner and for the same purposes as copper. Sulphuret of antimony is

used as an emetic, and in cases of eye disease. The preparations of iron are the sulphate and oxide of the metal. The *lohár mandal* is the ferruginous earth dug from the floor of a blacksmith's shop. Of arsenic, the yellow and red forms, together with the white oxide, after undergoing various processes of purification, are used in very small doses with aromatics in obstinate intermittent fevers, and in glandular and leprous affections. Of the minor minerals, talc, shells, diamonds, precious stones, sulphur, and ammonia enter largely into the preparations of the *kabiráj*. The forms in which medicines are administered by native physicians are as powders, pills, infusions, and decoctions.

The Hindu physicians compare the human body to a small universe, and maintain that, like the great universe, it has a creative, a preservative, and a destructive agency, in the shape of air, bile, and phlegm. The superabundance or diminution of these elements constitutes disease; and all maladies, according to them, arise from one of these causes. The therapeutic actions of medicines are also classed under the same three heads, according as they are supposed to cure defects of air, bile, or phlegm in the system. A separate classification, according to their action on different organs, is also noticed in Sanskrit works. In the diagnosis of diseases, the *kabiráj* is guided by *touch, observation, and questioning*. He examines the pulse very minutely, and according to its beatings determines whether the air, bile, or phlegm is at fault. In the treatment of diseases, the *kabiráj* administers his medicines almost in homœopathic doses; he is very particular about diet, and never allows cold water to drink. Patients are generally made to abstain from food and from water, even when parched with thirst. Air is rigidly excluded from the sick chamber, and cleanliness is no object.

HOSPITALS, DISPENSARIES, ETC.—The following table shows the number of hospitals and dispensaries in Húglí District, exclusive of the temporary special fever dispensaries, and the amount of relief afforded by them in 1871:—

MEDICAL CHARITIES OF THE DISTRICT OF HUGLI WITH HOWRAH IN 1871 (EXCLUSIVE OF JAHANABAD SUBDIVISION).

DISPENSARIES.	Date of Establishment.	IN-DOOR PATIENTS.							OUT-DOOR PATIENTS.		Opera-tions.		Total In- come, exclud- ing Balance in hand.	Income from Government	Cost to Government on account of European Medicines.	Subscriptions and Income from other Sources.	Expenditure, exclusive of the European Medicines supplied by Government free of Charge.			
		Total Treated.	Relieved or Re- covered.	Not Improved, or Ceased to Attend	Died.	Remaining in the Hospital	Percentage of Deaths to Treated.	Daily Average Number of Sick.	Total Treated.	Average Daily Attendance.	Capital.	Minor.						£.	s.	d.
(1) Howrah General Hospital.	1861	1184	1020	1	105	58	8.86	58.61	9977	98.17	19	215	3550	693	128	2857	716	2699	14	4
(2) Hugli, Imamhárá Hospital.	1836	468	336	9	98	25	20.94	26.18	5022	119.47	4	...	716	...	...	130	697	3	6
(3) Serampur Hos- pital.	1836	362	291	16	47	8	12.98	13.50	5678	86.19	23	320	190	60	...	179	187	5	6	
(4) Útarnárá Dis- pensary.	1851	233	176	23	14	20	6.00	19.15	4195	71.37	2	28	419	240	24	179	420	16	4	
(5) Sultángáchá Br. Dispensary.	1869	43	31	1	11	...	25.58	1.27	3776	36.99	...	...	192	10	10	192	192	19	2
(6) Dwaráásini Dispensary.	1856	...	...	...	...	...	...	...	1063	18.40	...	...	88	48	8	40	72	19	4
(7) Baidynááil Dispensary.	1857	...	...	...	...	...	...	...	2966	26.17	2	264	96	48	8	48	70	5	1
Total.*	...	2290	1854	50	275	111	12.00	...	32,617	...	50	827	5954	1089	178	4165	5434	14	3	

* There is also a small branch dispensary at Bâsurî, maintained by private liberality, concerning which I regret that I have not been able to obtain the details of the relief afforded.

INDEX

TO

MIDNAPUR AND HUGLI.

A

Aboriginal tribes, Midnapur, 51; Húglí, 281, 284.
 Absentee landlords, 146; 368.
 Abwabs, or customary cesses, in Midnapur, 108-113.
 Administration, Midnapur, 154-220; Húglí, 378-417.
 Administrative divisions of Midnapur, 186-200; of Húglí, 411-417.
 Afghan dynasty in Bengal, 18; Afghans in Midnapur, 49, 59.
 Age, Population according to, Midnapur, 44; Húglí, 273.
 Agriculture, Midnapur, 79-114; Húglí, 329-358.—*See also* Tillage, and Cultivators.
 Agricultural implements, Midnapur, 84; Húglí, 343, 344.
 Agricultural population compared with urban, Midnapur, 60, 61; Húglí, 293, 294.
 Akri village in Húglí, with mat manufacture, 372.
 Alluvion and diluvion, Midnapur, 24, 26-29; Húglí, 255, 257.
 American Baptist Mission at Midnapur, 60; for the Santáls, 181-183; for *Zandás*, 184.
 Ampta village in Húglí, with boating community, 305; and mat manufacture, 372.
 Anandpur village in Midnapur, with silk manufacture, 68.
 Andhiri, site of fair in Midnapur, 152.
 Andul, Rájá of, his estates in Húglí, 382, 383.
 Area of District, Midnapur, 17; under cultivation, etc., 82; Húglí, 251; under cultivation, etc., 240.
 Arrears of land revenue in Midnapur, 162.
 Aspect of District, General physical, Midnapur, 22, 23; Húglí, 253, 254.
 Assam, Emigrants from Midnapur to, 52.
 Astichak embankment in Midnapur, 143.

B

Babúganj village in Húglí, with river traffic, 263.
 Bágdá river.—*See* Rasulpur.
 Bágánán village in Húglí, with pottery manufacture, 373.
 Bahulia or Kámárgárchhí *khdí*, 254.
 Baidyabati municipality in Húglí, jute mart, etc., 263, 303, 375; rope manufacture, 373; *khdí*, 254; branch dispensary, 440.
 Bainchi village in Húglí, and railway station, 314; brass work, 373.
 Bakshi *khdí* in Húglí, 254, 256.
 Balagarh village in Húglí, with river traffic, 263.
 Bali village in Húglí, and railway station, 306; fair, 375.
 Bali *khdí*, 371; paperworks, 372.
 Bali-diwananj, seat of commerce in Húglí, 375.
 Balighai, trading village in Midnapur, 152.
 Ballabhpur, suburb of Serampur, 306; car festival of Jagannáth, 322, 324, 375.
 Balrampur, *parganá* and village in Midnapur, 104, 105, 191, 192.
 Balughat village in Húglí, with manufacture of gunny cloth, 372.
 Balughat village in Midnapur, with river traffic, 37.
 Baluti village in Húglí, with branch of Samáj, 293.
 Bandapara, seat of commerce in Húglí, 375.
 Bandel village in Húglí, with old Roman Catholic monastery, 307.
 Bandipur village in Húglí, with basket-work and mat-making, 372, 373.
 Banka Canal, in Midnapur, 36.
 Banks of rivers, Midnapur, 26; Húglí, 253, 255, 257.
 Bansbaria or Bansbati municipality in Húglí,

- site of Hindu temple, and home of Sanskrit learning, 303, 304.
- Baptist Missions in Húglí, 292, 293, 302, 303, 376.—*See also* American Missions.
- Barua, headman of village in Hijili, 71, 72.
- Baruni, or bathing festival, 323.
- Basuá village in Húglí, with branch of Samáj, 293.
- Basuri dispensary, 440.
- Bediya caste, 57; 266, 291.
- Begampur village in Húglí, with cotton-weaving, 372.
- Bhadreswar municipality in Húglí, with commerce, 263, 304, 375.
- Bhograi, a *pargand* now in Balasor District, 18.
- Birkhul, seaside watering-place in Midnapur, 70, 194.
- Birkhul embankment, 142.
- Blights, Midnapur, 114; Húglí, 358.
- Blind, Number of, in Midnapur, 44; in Húglí, 276.
- Bore on rivers, 26; 256, 257.
- Botanical gardens, near Howrah, 294.
- Boundaries of Midnapur, 18; of Húglí, 252.
- Borai, village in Húglí, with mat-making, 372.
- Bráhmans, Midnapur, 52; Húglí, 285.
- Brahma Samáj, Midnapur, 58; Húglí, 293.
- Brindabanchak embankment in Midnapur, 142.
- Buddhists, none, 59; 293.
- Bunas, aboriginal tribe, 57; 255, 291.
- Burinadi river, in Midnapur, 25.

C

- Calamities, Natural, Midnapur, 114-133; Húglí, 358-366.
- Canals: Midnapur High Level Canal, its construction, prospects, etc., 29-36, 371; Rúpnáyáran and Rasulpur Canal, 36, 37; in Húglí, 262, 263, 371.
- Capital and interest, Midnapur, 153; Húglí, 376.
- Capital, Imported, 153; 376.
- Castes, List of, etc., Midnapur, 52-58; Húglí, 284-291.
- Cattle, Midnapur, 83, 84; Húglí, 343.
- Cattle disease, 244.
- Census of 1872, its agencies, cost, and results, in Midnapur, 41-51; in Húglí, 267-284; in Howrah town, 296, 297.
- Cereal crops other than rice, Midnapur, 80; Húglí, 331.
- Cesses.—*See* *Abudds*.
- Chakrabari village in Húglí, with weaving community, 372.
- Chandernagar, or Chundernagore, French territory, 307, 375.
- Chandpur, seaside watering-place in Midnapur, 70.
- Chandrakona municipality in Midnapur, site of a former factory of the Company, now seat of trade, 61, 62, 152; 362.

- Chandrakona *pargand*, transferred from Húglí to Midnapur, 22, 195.
- Changes in jurisdiction, Midnapur, 21, 22; Húglí, 252, 253.
- Changes in river courses, Midnapur, 26-29; Húglí, 255, 257-261.
- Charitable institutions, 153; 377.
- Chaukidárs*.—*See* Police statistics.
- Chhota or Chutia Nagpur, Immigrants from, 51, 52; 284.
- Chinsurah, former Dutch settlement, now included in one municipality with Húglí town, 263, 301; public library, poor-fund, and printing press, 377.
- Chitwa embankment in Midnapur, 141, 142; *pargand*, 145.
- Cholera, 227, 228.
- Christian population, Midnapur, 59, 60; Húglí, 292, 293.
- Christian missions and schools, 60, 182, 183; 293, 303, 376, 398, 404.
- Climate, etc., of Midnapur, 227; of Húglí, 417.
- Collection of land revenue, its mode, 159, 160; its cost, 160-162.
- College, Húglí, its history, etc., 392-395.
- College, Baptist, at Serampur, 398; Bishop's, near Howrah, 294.
- Commerce and trade, Midnapur, 152; Húglí, 375, 376.
- Communication, Means of.—*See* Roads, Canals, etc.
- Compensating influences in case of flood or drought, Midnapur, 118, 119; Húglí, 361, 362.
- Condition of the people, Material, Midnapur, 78, 79; Húglí, 328, 329.
- Condition of the cultivators, Midnapur, 83; Húglí, 341, 342.
- Condition of the manufacturing classes, Midnapur, 149; Húglí, 373.
- Conservancy, etc., 239; 421.
- Contai or Kanthi Subdivision, 43, 188.
- Cotton, Cultivation of, 81, 334; manufacture of, 372.
- Cotton goods imported into Midnapur, 153.
- Courts in Midnapur, 163; in Húglí, 384.
- Cowcolly or Geonkháli, village in Midnapur, with river traffic, 37; lighthouse, 24, 220.
- Criminal cases, Midnapur, 167, 168; Húglí, 386.
- Crops.—*See* Tillage.
- Cultivating tenures, Midnapur, 92, 93; Húglí, 350-351.
- Cultivators, Condition of, Midnapur, 83; Húglí, 341, 342.—*See also* Occupancy rights, and Tenures of land.
- Cyclone of 1864, its effects in Midnapur, 220-227.

D

- Dámodar river, changes in its course, etc. 256-261.
- Danish settlement at Serampur, 302.

Dantun *pargand* and village, trade in mixed silk and cotton cloth, 196.
 Daspur village and police station, 68, 195.
 Day-labourers, or *krishdms*, Húglí, 347.
 Deaf and dumb, Number of, in Midnapur, 44; in Húglí, 276.
 Density of population, Midnapur, 41-43; Húglí, 269-275.
 Diluvion.—*See* Alluvion and diluvion.
 Diseases, Midnapur, 227-244; Húglí, 418-437.
 Dispensaries and Hospitals, Midnapur, 246, 247; Húglí, 439, 440.
 Drainage, General state of, and scheme for improvement, 419-430.
 Drainage, Lines of, Midnapur, 39, 229, 230; Húglí, 265-266.
 Dress of the people, Midnapur, 78; Húglí, 328.
 Drought, Midnapur, 114-116; Húglí, 360, 361.
 Drowning, Deaths by, Midnapur, 38.
 Drugs, Indigenous vegetable, Midnapur, 246; Húglí, 438, 439.
 Dumb.—*See* Deaf and dumb.
 Dumurdah village in Húglí, formerly dreaded for its robbers, 314.
 Durbachati *khdí* embankment, 140.
 Dusaspur embankment, 142.
 Dutch settlement at Chinsurah, 301, 377.
 Dwarbasini branch dispensary in Húglí, 440.
 Dwellings of the people, Midnapur, 78; Húglí, 328, 329.

E

East India Company, Early history of, 19-21; 300, 301.
 Educational statistics, Midnapur, 172-185; Húglí, 392-409; Howrah town, 298.
 Egra, site of fair in Midnapur, 152.
 Elevated tracts, hills, etc., Midnapur, 23.
 Embankments, Midnapur, along rivers, 38; alphabetical list of, with description of the system and cost, 133-146; Húglí, on left bank of Rúpnráyan, 256; on west bank of Dámodar, 257; for marsh reclamation, 264, 266, 359, 360.
 Emigration and Immigration, Midnapur, 52; Húglí, 284.
 Endemic.—*See* Diseases.
 English, first settled at Húglí, 300.
 Eranch *pargand*, and embankment in Midnapur, 145, 198.
 Epidemic.—*See* Diseases.
 Expenditure.—*See* Revenue and expenditure.
 Exports and imports, Midnapur, 152; Húglí, 375.

F

Factory, Weaving, of the Company at Chandrakona, 61, 62; in Húglí, 374.
 Fairs or religious gatherings, Midnapur,

152; Húglí, 375; as causes of disease, 244, 245.
 Fallow lands, Midnapur, 113; Húglí, 358.
 Famine of 1866, effects and relief operations, Midnapur, 120-133; Húglí, 362-366.
 Famine warnings, Midnapur, 119, 120; Húglí, 366, 367.
 Females, Number of, Midnapur, 41, 44; Húglí, 277.
 Females, Occupations of, Midnapur, 47, 48; Húglí, 279, 280.
Fera Naturæ, Midnapur, 39, 40; Húglí, 266.
 Ferries, 148; 256, 370.
 Fever, Malarious, in Midnapur, Report of the Magistrate, 229-244; in Húglí, 418-437; its causes, 419-433; its nature, 433; the mortality, 435-437.
 Fibres, Cultivation of, in Midnapur, 80; in Húglí, 334.
 Fiscal Divisions or *pargands*, alphabetical list, with details, Midnapur, 189-220; Húglí, 413-417.
 Fish, fisheries, and fishing communities, Midnapur, 37, 38; Húglí, 264, 266.
 Floods, Midnapur, 116-118; Húglí, 359, 360.
 Food of the people, Midnapur, 79; Húglí, 329.
 Foreign landlords, 146; 367, 368.
 Forts, Ruined, 20; 255, 299, 312.
 French settlement of Chandanagar, 307.
 Fruit trees grown in Húglí, 337, 338.
 Furniture of the people, Midnapur, 78, 79; Húglí, 328, 329.

G

Game, Small, in Midnapur, 40; in Húglí, 266.
 Gangakhali *khdí* embankments, 140.
 Garhbeta Subdivision in Midnapur, 43, 188; branch dispensary, 247.
 Gauhati school in Midnapur, 180.
 Geonkhali.—*See* Cowcolly.
 Ghatal municipality in Midnapur, recently transferred from Húglí, 62; seat of commerce, 152; embankment, 141.
 Gholgat, early fortress of Portuguese in Húglí, 299.
 Ghusri, trading village near Howrah, with cotton mills, 372, 375.
 Girl schools, Midnapur, 183, 184; Húglí, 405.
 Gold dust found in the rivers of Midnapur, 39, 149.
 Gopanadi river in Midnapur, 24.
 Gopiballabhpur, site of fair in Midnapur in honour of Chaitanya, 152.
 Green crops, Midnapur, 80; Húglí, 332, 333.
 Guptipara village in Húglí, seat of Sanskrit learning, 315.
 Guruk village in Húglí, with cotton manufacture, 372.

H

Haldi river in Midnapur, 25; embankment, 145.
 Hemp, Cultivation of, 80; 334.
 Hijili, formerly separate jurisdiction, now in Midnapur, 21; seat of salt manufacture, 150-152; history and administration, 199, 200.
 Hijili Kasba *pargand*, 199; embankment, 145.
 Hill tribes, Midnapur, 51, 52; Húglí, 281, 284.
 Hindu population, Midnapur, 44, 58; Húglí, 273, 291.—*See also* Castes.
 Hospitals.—*See* Dispensaries.
 Houses, Number of, in Midnapur, 41; Húglí, 273.
 Houses of the people, Midnapur, 74; Húglí, 328, 329.
 Howrah magistracy and Subdivision, 252, 275, 412.
 Howrah town and suburbs, history and description of, 294, 295; boundaries, 295; census, 296, 297; educational census, 298; hospital, 440.
 HUGLI or HOOGHLY DISTRICT, WITH HOWRAH, 251-440.
 Geographical Situation, Area, Headquarters, etc., 251; Boundaries and Jurisdiction, 252; General Aspect, 253; River System, 254-262; Lakes, Water-courses, and Canals, 262; River-side Towns and Utilization of the Water Supply, 263; Fisheries, etc., 264; Marsh Reclamation, 265; Jungle Products, Embankments, and *Fera Natura*, 266; Census of 1872, its Agencies and Results, 267-284; Density of Population, 269-273; Population according to Sex and Age, 273; according to Occupation, 276-280; Ethnical Division of People, 280-284; List of Castes, 284-291; Religious Division of People, 291-293; Division of People into Town and Country, 292; Howrah Town, 292-298; Húglí and Chinsurah, 298, 301; Other Municipalities, 301-305; Smaller Towns and Places of Importance, 305-315; Village Institutions, 317-321; Fairs and Religious Gatherings, 322-328; Material Condition of the People, 328, 329; Agriculture, 329-358; Rice Crop, 329-331; Other Cereals, 331; Pulses and Green Crops, 332; Oil-seeds, 333; Fibres, 334; Vegetables, 334-337; Fruit Trees, 337; Miscellaneous Crops, 338, 339; Area, Out-turn of Crops, etc., 340; Condition of the Peasantry, 341, 342; Operation of the Land Law, and Domestic Animals, 343; Agricultural Implements and Wages, 344; Prices of Food Grains, 345; Weights and Measures, 345, 346; Day-labourers and Spare Land, 347; Land Tenures, 348-353; Rates of Rent, 354-356; Manures and Irrigation, 357; Rotation of Crops, and Blights, 358;

Floods, 359, 360; Droughts, 361; Famine of 1866, 362-367; Foreign and Absentee Landlords, 367; Roads and Means of Communication, 368-370; Railroads, 370; Canals, 371; Mines, Quarries, and Manufactures, 372; Condition of the Manufacturing Classes, 373; Extinct Manufactures, 374; Trade and Commerce, 375; Capital and Interest, 376; Institutions, Newspapers, and Printing Presses, 377; Incomes and Income Tax, 377, 378; Administration, 378-417; Revenue and Expenditure, 378-381; Land Revenue, 378-383; Land Law, 383; Courts, 384; Police Statistics, 384, 385; Criminal Cases, 386, 387; Jail Statistics, 387-391; Educational Statistics, 392-409; Postal Statistics, 410; Subdivisional Administration, 411-413; List of Fiscal Divisions, with details, 413-417; Medical Topography, 417; the Epidemic of Malarious Fever, its Causes, Nature, and Mortality, 418-437; Native Practitioners and their Drugs, 438, 439; Dispensaries, 440.

Húglí town, forming one municipality with Chinsurah, founded by the Portuguese, first settlement of English in Lower Bengal, 299-301; Imambara, 301; Húglí College, 392-394; hospital, 440.

Húglí river, forms eastern boundary of Midnapur and Húglí, 18, 252; its course, changes, and banks, 23, 24, 254, 255; old charts, 258.

Husbandmen.—*See* Cultivators, Tillage, etc.

I

Idiots, Number of, in Midnapur, 44; in Húglí, 276.

Imambara, or Muhammadan mosque, at Húglí, 301.

Immigration.—*See* Emigration and immigration.

Implements of agriculture.—*See* Tillage, etc.

Imports.—*See* Exports and imports.

Incomes and income tax, Midnapur, 154; Húglí, 377.

Indigenous drugs.—*See* Drugs.

Indigo, Cultivation of, 81, 203, 338; factories, 153.

Insane, Number of, in Midnapur, 44; in Húglí, 276.

Institutions, societies, etc., Midnapur, 153; Húglí, 376, 377.

Interest, Rates of, Midnapur, 153; Húglí, 376.

Inundations.—*See* Floods.

Iron found in Midnapur, 39, 149.

Irrigation, Midnapur, from Midnapur High Level Canal, 29-36; from other sources, 37, 114; Húglí, 263, 264, 357.

J

- Jagirs in Midnapur, 97-100.
 Jail statistics, Midnapur, 168-172; Húglí, 387-391.
 Jalamuta *pargand*, Historical account of, 200, 201; embankment, 143.
 Jaleswar, a *pargand* and town, now in Balasor District, 18.
 Jalpai, a land tenure peculiar to Midnapur, connected with manufacture of salt, 88, 89.
 James and Mary Sands (a corruption of *jal márt*) in the Húglí, between the mouths of the Rúpnráyan and Dámodar rivers, 23, 24, 255; their origin, and scheme for their removal, 257-261.
 Jamuná river flows into the Húglí at Tribení, 310.
 Jhargaon *pargand*, 202; school, 179.
 Jharipur village, with fair in honour of Siva, in Midnapur, 152.
 Jungle products, Midnapur, 39; Húglí, 266.
 Jurisdiction, Extent of, and changes in, Midnapur, 18-22; Húglí, 252, 253.
 Jute, Cultivation of, Húglí, 334.

K

- Kabirajs.—*See* Native Physicians.
 Kaibartta, the most numerous caste both in Midnapur and Húglí, their history, subdivisions, and numbers, 54, 67; 288.
 Kaliaghai and Kalikund rivers, tributaries of the Haldí in Midnapur, 25.
 Kana *nadi* and Kansona *khdí*, old channels of the Dámodar in Húglí, 361, 423, 429.
 Kanthi.—*See* Contai.
 Kasai river, tributary of the Haldí in Midnapur, 25; embankment, 145.
 Kasiari village in Midnapur, with silk manufacture and trade, 68, 152.
 Kasijora village, with community of mat-makers, 68, 149.
 Kayapat village in Midnapur, with manufacture of cotton cloth, 67.
 Kedar *pargand* in Midnapur, Settlement of, 102.
 Kharagpur *pargand* in Midnapur, Settlement of, 102-104.
 Kharan embankment in Midnapur, 144.
 Khasbar embankment in Midnapur, 141.
 Khipra village in Húglí, with community of cotton-weavers, 372.
 Khursarai village in Húglí, with cotton manufacture, 372.
 Khusbaria *khdí* in Húglí, 254.
 Konnagar village in Húglí, with Bráhmán community and railway station, 306.
 Kotrang municipality in Húglí, with brick manufactures, etc., 304.
 Kukrahati village in Midnapur, with river traffic, 37.

- Kunti or Nayasarai *khdí* in Húglí, 254, 261, 424.
 Kutabpur village in Midnapur, with fair, 152.

L

- Labourers.—*See* Day-labourers.
 Lakes, marshes, etc., Húglí, 262.
 Land law, Operation of, Midnapur, 108, 163; Húglí, 343, 356, 383.
 Land revenue, Midnapur, under the Mughuls, 18; under the English, 157-163; Húglí, 378, 383; mode of collection, 159, 160; cost of collection, 160-162; arrears, 162.
 Land settlement.—*See* Settlement.
 Land tenures.—*See* Tenures of land.
 Land, Waste, Midnapur, 85; Húglí, 347.
 Landed estates, Midnapur, 157; Húglí, 378, 380.
 Landholders.—*See* Tenures of land.
 Laterite found in Midnapur and quarried for building purposes, 39, 149.
 Lepers, Number of, in Midnapur, 44; in Húglí, 276.
 Libraries, Public, in Midnapur, 153; in Húglí, 376, 377.
 Life, Loss of, by drowning, Midnapur, 38.
 Life, Loss of, by wild beasts and snake-bites, Midnapur, 39, 41; Húglí, 266.
 Limestone found in Midnapur, 39; quarried in Húglí, 372.
 Living, Expenses of, Midnapur, 79; Húglí, 329, 342.
 Long-stemmed rice.—*See* Rice crops.

M

- Madakhali embankment in Midnapur, 144.
 Madrasahs, or Muhammadan schools, 292-295.
 Madra village in Húglí, with basket manufacture, 373.
 Magh fishermen visit the coast of Hijili, 38.
 Magrah village in Húglí, with local trade and railway station, 312.
 Mahesh, suburb of Serampur, festivals in honour of Jagannáth, 306, 323.
 Mahiari market village in Húglí, 375.
 Mahishrakha, Subdivision of Húglí, 275, 412.
 Mainachura *pargand* in Midnapur, 207; *kila*, or fort, 20.
 Majnamuta *pargand* in Midnapur, Historical account of, 208, 209; embankment, 142, 143.
 Makara Sankranti, name of great festival at Tribení, 322.
 Makla village in Húglí, with manufacture of ropes, 373.
 Malishadal *pargand* in Midnapur, Historical account of, 206; fair, 152.

- Manufactures in Midnapur, 149-152; in Húglí, 372-375.
- Manufacture of salt in Hijili, 150-152.
- Manufactures, Extinct, in Húglí, 374, 375.
- Manure, Midnapur, 113; Húglí, 357.
- Marhattas in Midnapur, 20, 21, 48, 65.
- Marshes.—See Lakes, etc., and Reclamation.
- Mat manufactures, 149; 372.
- Material condition of the people, Midnapur, 78, 79; Húglí, 328, 329.
- Mayapur village in Húglí, with cotton manufacture, 372.
- Mayrapati village in Húglí, with extinct manufacture of silk cloth, 374.
- Measures.—See Weights and measures.
- Medical aspect of District, Midnapur, 227-247; Húglí, 417-440.
- Mela.—See Fairs.
- Meteorological aspects.—See Climate, Cyclones, etc.
- MIDNAPUR DISTRICT, 17-245.
- Geographical Situation, Area, Headquarters, etc., 17; Boundaries, 18; Jurisdiction, 18-22; Physical Aspect, 22, 23; River System, 23-26; Changes in the Course of the Húglí, 26-29; Midnapur High Level Canal, 29-36; Tidal Canal, 36; Utilization of Water Supply and Fisheries, 37; Land Reclamation, 38; Lines of Drainage, Mineral and Jungle Products, and *Fera Natura*, 39; Estimates of Population prior to 1872, 40; Census of 1872, its Agencies and Results, 41-51; Population according to Sex and Age, 41, 44; according to Occupation, 44-48; Ethnical Division of People, 48-51; Emigration, etc., 52; List of Castes, with details, 52-57; Religious Division of the People, 58-60; Division of the People into Town and Country, 60, 61; Large Towns, etc., 61-69; Seaside Watering-places, 70; Village Institutions, 70-78; Material Condition of the People, 78, 79; Agriculture, 79-114; Rice Crops, etc., 79-81; Green Crops, 80; Miscellaneous Crops, 81; Area, Out-turn of Crops, etc., 82; Condition of the Peasantry and Domestic Animals, 82; Agricultural Implements, Wages and Prices, Weights and Measures, 84; Waste Lands, 85; Land Tenures, 86-100; Settlement, etc., 100-105; Revenue Survey, 105-107; Rates of Rent, 107, 108; *Abwabs*, or Customary Cesses, 108-113; Manure, 113; Irrigation and Blights, 114; Droughts, 114-116; Floods, 116-118; Famine Prices and Famine Warnings, 119-120; Famine of 1866, 120-133; Embankments, 133-146; Foreign and Absentee Proprietors, 146; Roads and Means of Communication, 146-149; Minerals, 149; Manufactures, 149, 150; Salt Manufacture, 150-152; Trade and Commerce, 152; Capital and Interest and Institutions, 153; Incomes and Income Tax, 154; Revenue and Expenditure, 154-157; Land Revenue, 157; Land Settlement, 158; Mode of Collecting Land Revenue, 159; Cost of Collection, 160, 161; Arrears of Land Revenue, 162; Land Law and Courts, 163; Police Statistics, 163-167; Criminal Cases, 167; Jail Statistics, 168-172; Educational Statistics, 172-185; Postal Statistics, 185; Subdivisional Administration, 186-189; Alphabetical List of Fiscal Divisions, or *Pargands*, with details, 189-220; Cyclone of 1864, 220-227; Climate, Medical Aspect, etc., 227; Epidemics and Small-pox, 228; Epidemic Malarious Fever, 229-244; Cattle Disease and Fairs, 244; Native Practitioners, 245; Indigenous Vegetable Drugs, 246; Dispensaries, 247.
- Midnapur town municipality, 61; brass and copper manufactures, 149; dispensary, 247.
- Midnapur *pargand*, Historical account of, and of the Rájá, 210.
- Mines and minerals in Midnapur, 39, 149; in Húglí, 372.
- Missions, Christian, and missionaries, Midnapur, 60, 182, 184; Húglí, 293, 376.
- Mohankhali embankment in Midnapur, 141.
- Mohiari village in Húglí, with community of Pir Ali Bráhmans, 305.
- Morbhanj, Rájá of, his estates in Midnapur, and former troublesomeness, 20, 21.
- Mortality from epidemic fever in Húglí, 435-437.
- Mortgages, 153; 376.—See also Tenures of land.
- Mughul Government of Midnapur and Hijili, 18, 150, 151; of Húglí, 299, 300.
- Muhammadian population, Midnapur, 44, 58, 59; Húglí, 273, 292.
- Mulberry, Cultivation of, 81; 339.
- Municipalities in Midnapur, 61-67; in Húglí, 294-305.
- Municipal police.—See Police statistics.
- Mustard, Cultivation of, 80; 333.

N

- Narajol village in Midnapur, with manufacture of cotton cloth and mats, 67, 149; embankment, 142.
- Naruamata embankment in Midnapur, 144.
- Naryangarh *pargand* in Midnapur, with ancient family of Rájás, 211.
- Native Christian population, Midnapur, 60; Húglí, 292, 293.
- Native physicians, or *kabirdjs*, Midnapur, 245; Húglí, 438, 439.
- Natural calamities, Midnapur, 114-133, 220-227; Húglí, 358-366.
- Nawada village in Midnapur, with manufacture of cane sugar, 68; seat of river traffic, etc., 37, 152.
- Nayasarai, considerable village in Húglí, 314.
- Newspapers in Húglí, 377.

Nimtala village in Midnapur, with river traffic, 37.
 Normal schools, Midnapur, 180-183; Húglí, 401.
 Nutan Bázár in Midnapur town, with river traffic, 37.

O

Occupations of the people, Midnapur, 44-48; Húglí, 276-280.
 Occupancy rights of the cultivators, Midnapur, 83; Húglí, 343.
 Oil-seeds, Cultivation of, Midnapur, 80; Húglí, 333.
 Orissa Balishahi *parganá* in Midnapur, Historical account of, 212.
 Out-turn of crops, etc., Midnapur, 82; Húglí, 340, 341.

P

Padambasan village, with river traffic, in Midnapur, 37.
 Paiks, indigenous village police in Midnapur under the *Zamínádrs*, maintained by service lands, 97, 98, 164, 165.
 Pairatungi *khdí*, embankment in Midnapur, 140.
 Pan or betel-leaf, Cultivation of, 81; 339.
 Pana circular embankment, in Midnapur, 141.
 Panchayat or village tribunal, in Húglí, 431.
 Panchkura, trading village in Midnapur, 152.
 Panduah village and railway station in Húglí, ancient seat of a Hindu Rájá, and scene of a Muhammadan victory, 312-314; formerly celebrated for paper-manufacture, 375.
 Pataspur *parganá* in Midnapur, Historical account of, 213.
 Pataspur embankment, 145.
 Peacock dynasty of Tamluk, 63-67.
 Peasantry.—*See* Cultivators, Tillage, etc.
 People, Material condition of, Midnapur, 78, 79; Húglí, 328, 329.—*See also* Population.
 Pharidars, indigenous superior officials of police in Húglí, 320.
 Pichabani embankment, in Midnapur, 143.
 Pilgrimage, Places of, 65, 67; 311.—*See also* Fairs.
 Physical aspect of the District, Midnapur, 22, 23; Húglí, 253, 254.
 Places of historical interest in Húglí, 305-315.
 Police circles or *thánds*, List of, Midnapur, 166, 167; Húglí, 385, 386.
 Police statistics, Midnapur, 163-168; Húglí, 384-387.
 Population.—Midnapur, Estimates of, prior to 1872, 40; Census of 1872, its agencies and results, 41-51; according to sex and age, 41, 44; according to occupation, 44-48; ethnical division of, 48-57; re-

ligious division of, 58-60; division of, into town and country, 60, 61.—Húglí Census of 1872, its agencies and results, 267-284; density of, 269-273; according to sex and age, 273; according to occupation, 276-280; ethnical division of, 280-291; religious division of, 291-293; division of, into town and country, 292.
 Portuguese, Settlement of, at Húglí, 299, 300.
 Postal statistics, Midnapur, 185-186; Húglí, 410, 411.
 Pottery manufacture in Húglí, 373.
 Prices.—*See* Wages and prices.
 Printing presses, Midnapur, 153; Húglí, 377.
 Pukuria *khdí*, in Húglí, used for navigation, 263, 371.
 Pulses, Cultivation of, Midnapur, 80; Húglí, 332, 333.
 Purandar-nadi, tributary of the Siláí, 24.

R

Raghunathpur or Raghunáthbari, police station in Midnapur, with manufacture of mats, 68, 149.
 Railways in Húglí, 370.
 Rájapur *khdí*, in Húglí, 262; scheme for drainage of, 427.
 Rajbalhat village in Húglí, with cotton manufacture, 377.
 Rajganj, site of brick manufacture, in Húglí, 376.
 Ramgarh *parganá* in Midnapur, Historical account of, 215.
 Ramkrishnapur, trading village in Húglí, 375; suburb of Howrah, 295.
 Rasulpur or Bagda river, in Midnapur, tributary of the Húglí, 25.
 Rathgara Bázár branch dispensary, 247.
 Reclamation of marsh land, Midnapur, 38; Húglí, 264, 265.
 Relief operations for famine of 1866, Midnapur, 125-132; Húglí, 363-366; for cyclone of 1864, Midnapur, 225, 226.
 Religious division of the people, Midnapur, 58-60; Húglí, 291-293.
 Rent of land, Rates of, Midnapur, 100-105, 107, 108; Húglí, 354-357.
 Rent cases, Midnapur, 163; Húglí, 383.
 Rent-free tenures.—*See* Tenures of land.
 Revenue and expenditure, Midnapur, 154-157; Húglí, 378-381.
 Rice crop, Midnapur.—Long-stemmed or marsh-rice, 38, 39; varieties of crop, 79-80; extension of cultivation, names of plant in different stages, and of preparations made therefrom, 81; estimated area under rice and out-turn, 82. Húglí.—Long-stemmed rice, 265; varieties of crop, 329, 330; names of plant in different stages, and of preparations made therefrom, 331; estimated area under rice and out-turn, 340, 341.
 Rights of cultivators.—*See* Occupancy rights, and Tenures of land.

River system of Midnapur, 23-29; of Húglí, 254-262.
 River traffic, Midnapur, 37; Húglí, 263.
 Roads and means of communication, Midnapur, 146-149; Húglí, 368-371.
 Rotation of crops, Midnapur, 113; Húglí, 358.
 Rúpnráyan river, east boundary of Midnapur, 24; western and southern boundary of Húglí, 255, 256; embankment, 139, 140.
 Rúpnráyan and Rasulpur Canal, tidal, for navigation, 36.
 Rusumat, or illegal fees paid to *samúddars*, 112, 113.

S

Salkhia, suburb of Howrah, with manufacture of bricks, and trade, 263, 295, 375.
 Salt manufactured at Hijili, former Government monopoly, 21, 39, 150-152; smuggling in Howrah, 387.
 Samáj.—See Bráhma Samáj.
 Sanbaria embankment in Midnapur, 143.
 Sand dug for building purposes in bed of the Saraswatí, 372.
 Sanitation, etc., with reference to the malarious fever, 239, 240; 421.
 Sankral *khál* in Húglí, 254, 263; used for navigation, 371.
 Santals in Midnapur, 39, 49, 51; American Baptist Mission and schools, 60, 182, 183; in Húglí, 281, 284.
 Saoraphuli village, with river traffic, in Húglí, 263.
 Saraswati, historical river, now silted up into a *khál*, 254, 262.
 Satgaon or Saptagram, traditional mercantile capital of Bengal, now a village with ruined mosque, 307-310.
 Schools.—See Educational Statistics.
 Seaside watering-places in Midnapur, 68, 70.
 Semi-aboriginal castes, Midnapur, 57; Húglí, 290, 291.
 Serampur, former Danish settlement, now municipality, with railway station and Baptist Mission, 301-303; paper mills and mat manufacture, 372; library and printing press, 377; college, 398; hospital, 440.
 Serampur *khál*, 254.
 Service tenures.—See Tenures of land.
 Settlement of land, Permanent and temporary, in Midnapur, 100-105, 158, 159, 161, 162.
 Sex, Population according to, Midnapur, 44; Húglí, 273.
 Sibpur, suburb of Howrah, with manufacture of bricks, and trade, 295, 375, 376; aided higher school, 402.
 Silai river in Midnapur, 24; embankments, 139.
 Silk manufacture in Midnapur, 149-150; in Húglí, 372, 374.
 Singur village in Húglí, with market gardening, 307.

Sivaratri, worship of Siva at Tarakeswar, in Húglí, 324-327.
 Small-pox in Midnapur, 228.
 Smuggling in Húglí, 387.
 Soadighi *khál* embankment in Midnapur, 140.
 Soapstone found in Midnapur, 39, 149.
 Societies.—See Institutions and Missions.
 Soil of Midnapur, 22; of Húglí, 254.
 Spare land, Midnapur, 82, 85; Húglí, 340, 347.
 Subanrekha river, in Midnapur, 245.
 Subdivisional administration, Midnapur, 186-189; Húglí, 411-413.
 Subdivision of estates, Midnapur, 157; Húglí, 378, 380.
 Sugar-cane, Cultivation of, 80, 338; trade in sugar, 152.
 Sujamuta *pargand* in Midnapur, Historical account of, 217.
 Sujamuta embankment, 143.
 Sukinda village in Húglí, with pottery manufacture, 373.
 Survey, Revenue, of Midnapur, 105-107.
 Sultangachha dispensary in Húglí, 440.
 Syampur village in Húglí, with pottery manufacture, 373.

T

Tálukdars.—See Tenures of land.
 Tamluk, capital of ancient Hindu kingdom, with mythical and historical fame, now a municipality and seat of commerce, 62-67, 152; account of *pargand* under British rule, 217, 218; dispensary, 247.
 Tamluk Subdivision, 42, 187.
 Tarakeswar, shrine of Siva in Húglí, 307, 324-328.
 Tenures of land, Midnapur.—Ordinary rent-paying tenures, 86-91; cultivating tenures, 92, 93; rent-free tenures, 94-97; service tenures, 97-100. Húglí.—Estates paying revenue direct to Government, 348; intermediate tenures, 348-350; cultivating tenures, 350-352; rent-free tenures, 352, 353; service tenures, 353.
 Tides in rivers.—See River system, Bore, etc.
 Tidal canal, in Midnapur, for navigation, 36.
 Tillage, Midnapur.—Long-stemmed or marsh-rice, 38, 39; rice crops, 79, 80; green crops, 80; miscellaneous crops, 80, 81; area, out-turn of crops, etc., 82; implements of, 84; manure, irrigation, etc., 113, 114. Húglí.—Long-stemmed rice, 265; rice crops, 329-331; other cereals, 331; pulses and green crops, 332, 333; oil-seeds, 333; fibres, 334; vegetables, 334-337; fruit trees, 337; miscellaneous crops, 338, 339; area, out-turn of crops, 340, 341; implements of, 343, 344; manure, irrigation, etc., 357, 358.—See also Cultivators.
 Tiropkia Canal in Midnapur, for navigation, 36.

Tobacco, Cultivation of, in Húglí, 339.
 Towns, List of, in Midnapur, 60-69; in Húglí, 293-316.
 Trade, Midnapur, 37, 152; Húglí, 263, 361, 362.
 Tribeni village at junction of Húglí, Saraswati, and Jamuná; place of pilgrimage and of Sanskrit learning, mosque, 310-312; fairs, etc., 322, 323; river traffic, 263.
 Tubers cultivated in Húglí, 335.
 Tulsichaura, site of fair in Midnapur, 132.
 Turmeric cultivated in Húglí, 339.

U

Udbahal embankment in Midnapur, 144.
 Ulubaria village in Húglí, with river traffic, 263; starting-point of Midnapur Canal, and of highroad to Jagannáth, 262, 305.
 Uriyas, Numbers of, in Midnapur, 51; influence in the population, 21, 48.
 Uttarpara village in Húglí, with municipality, 306; Government school, 398, 402; girls' school, 405; dispensary, 440.

V

Vaishnavs, Midnapur, 55; Húglí, 289.
 Villages, Number of, in Midnapur, 42, 43, 189; in Húglí, 274, 275.
 Villages classified according to population Midnapur, 60-61; Húglí, 294.
 Village institutions, Midnapur, 70-78; Húglí, 317-321.
 Village watch.—*See* Police statistics, and Paiks.

W

Wages and prices, Midnapur, 84; Húglí, 344, 345.
 Wahabis, or reforming sect of Muhammadans, 59; 292.
 Warnings of famine in Midnapur, 119, 120.
 Waste land.—*See* Spare land.
 Weaving in Húglí, 372, 374.
 Weights and measures, Midnapur, 84, 85; Húglí, 345, 347.
 Wild animals, Midnapur, 39, 40; Húglí, 266.

Z

Zamíndárs.—*See* Tenures of land.

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